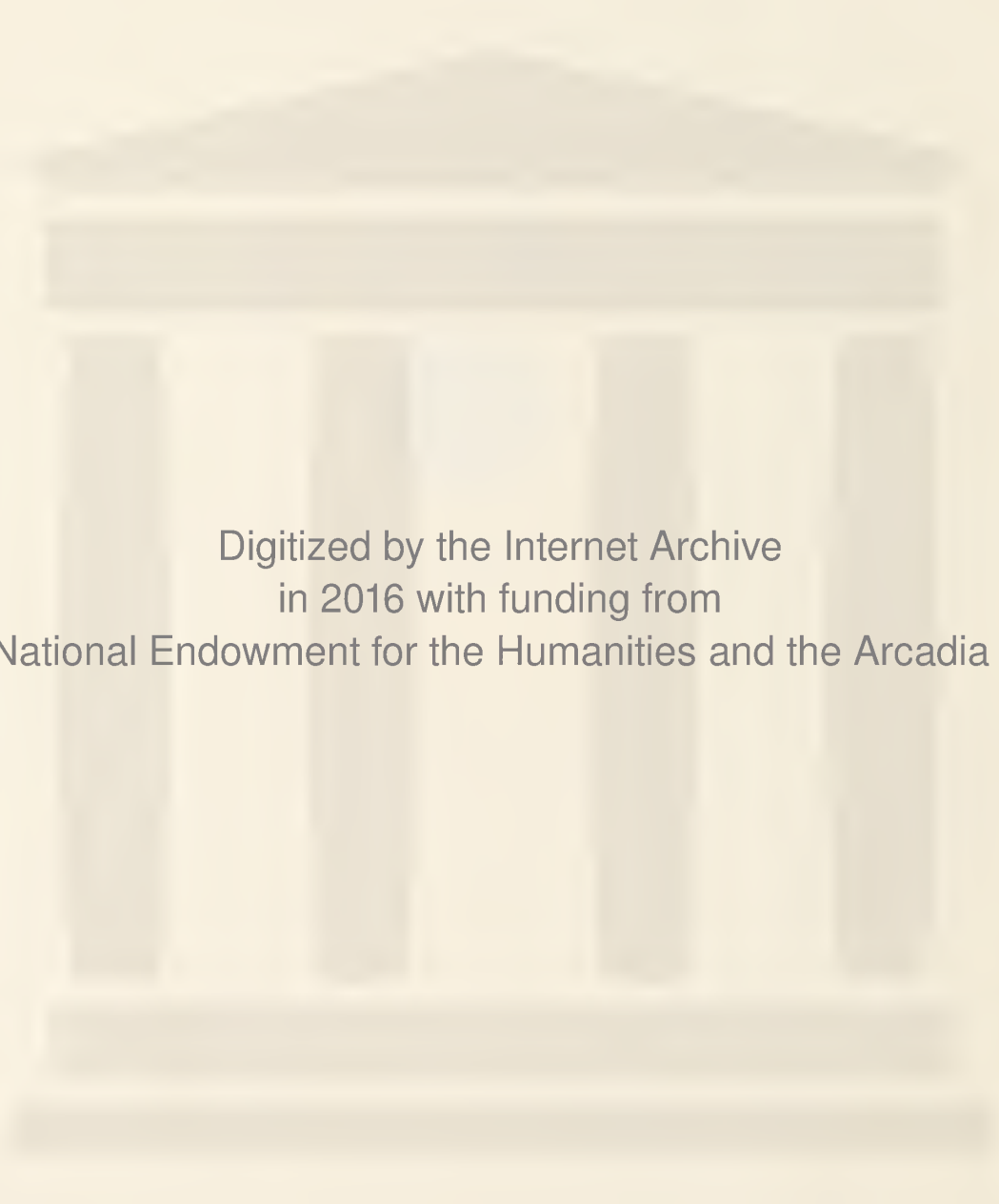


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OKLAHOMA STATE MEDICAL ASSOCIATION
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This midwinter scene was captured by William S. Harrison, MD, in Chickasha's Shanoan Park.

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Don't Shake the Baby

One of my early childhood memories is a vivid mental picture of my mother demonstrating to me the open fontanelle of a new cousin. I was allowed to gently stroke the "soft spot" on the baby's head, and at the same occasion was instructed in the innate weakness of the new baby's neck muscles and how to support a wobbly head when holding a baby.

Thus, I have "always" known not to shake the baby and to carefully protect the infantile head from injury. The more complex lessons learned much later in medical school merely underscored what I learned as a little child.

Unfortunately, not everyone has learned to coddle babies during infancy, and many current news reports are full of detailed stories of caretaker infanticide and serious infant injury. The media reports of child abuse court cases paint a picture of flagrant disregard of the fragility of children's tissues, and also suggest the expression of caretaker hostility toward children similar to the "road rage" that contributes to auto accidents.

TV news stories of infanticide between dances at the high school prom or in an off-campus motel room, and the journalistic currency of "Shaken Baby Syndrome" and "Munchausen's Syndrome by Proxy" evoke questions about the moral compass of our society. Media reports of the public trials in these notorious cases raise our anxiety about the efficacy of our legal system.

Verily, human nature changes little over the years, and the human infant has always been at the mercy of the caretaker. Infanticide was a well-documented political weapon of ancient Egypt and Greece, and is even now a whispered-about "control" method in our own modern society. What *is* new is the intensity of the media coverage, the increased incidence of the commercial caretaker, and a ponderous, stumbling recognition by the law that babies and children may have some "rights" similar to other human beings.

Also, our society shows a morbid fascination with the news reports of infanticide, infant injury, and abandonment, and simultaneously has a tendency to pathological denial of the importance of any effects from these abhorrent events. Child abuse has become the emblematic crime of our epoch.

Society morality and culturally determined mores are crucial factors in establishing a milieu where babies and children will thrive—but the medical profession also carries a vital responsibility. Physician knowledge of the developmental stages of infancy and childhood, and of the special needs and vulnerabilities of youngsters ought to have increased dissemination to the parents and caretakers of children in our culture.

Medical knowledge of injury mechanisms and the stigmata of the various forms of child abuse has improved considerably in recent times. However, our enlightenment on this subject is far from complete, and some of the stumbling of our legal system is caused by medical opinion disagreements.

When expert orthopedists express contrary opinions in court on the significance of a spiral fracture in a baby's humerus, the legal remedy to child abuse may be thwarted. When forensic experts disagree on the time and extent of infant intracranial hemorrhage, infanticide may escape legal detection. Then the savants are at odds, judges and juries stumble.

We can conclude that our culture and our courts require improvement in dealing with the nurture of children and the restraint of those who injure children. But our medical profession has a heavy responsibility to lead the way in the research needed to elucidate the pathology of injury, abuse, and sexual exploitation of the young. Physicians must light this lamp of knowledge. We physicians also have a central role in developing a better understanding of the behavioral aberrations of those caretakers who injure and mistreat children in their care.

Clearly, physicians should have increased knowledge and sensitivity to the incidence of child abuse and infanticide. Every specialty of medicine has its cases of child abuse, either with the victim or the perpetrator, and our medical education system needs to be beefed up in teaching the diagnosis, and the subtleties, of child abuse.

Every parent, nanny, au pair, babysitter and sundry caretaker must learn the basic lesson: Don't shake the baby!

Ray V. McIntyre, M.D.

Our medical education system needs to be beefed up in teaching the diagnosis, and the subtleties, of child abuse.

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The Moving Finger Writes, and Having Writ, Moves On...

On February 2, I was your representative as Doctor of the Day when the Second Session of the Forty-Sixth Legislature convened.

OSMA faces significant challenges and opportunities during this session and the legislative team, headed by Council Chair Edward N. Brandt, Jr., MD, has been preparing diligently for that effort.



Kathleen A. Musson, OSMA associate director, has been designated Director of Political Affairs and will work on legislative grassroots efforts at both the local and federal level.

Lobbyist Lynne White will be assisted full-time by Tracy Vargas, a 1997 University of Oklahoma graduate currently enrolled in the university's graduate program in Health Administration and Policy at the OU Health Sciences Center. I would also like to thank Jeffrey R. Shaver, MD, OMPAC chair, and Richard J. Boatsman, MD, Governmental Relations chair, for their legislative efforts on behalf of the association.

House Bill 2319, "The Oklahoma Patient Care Quality Improvement Act," authored in the House of Representatives by State Representative Russ Roach (D-Tulsa), is a joint effort of the Oklahoma State Medical Association, the Oklahoma Hospital Association, and the Oklahoma Osteopathic Association. HB 2319, if enacted, will protect the confidentiality of sensitive information exchanged during hospitals' quality improvement process.

HB 2319 will continue to allow physicians and other health care professionals who serve on hospital quality improvement committees as volunteers, to review and discuss specific patient cases frankly and candidly, without fear that their comments will be disclosed to anyone outside the committee. Assuring the confidentiality of the information and discussion which is exchanged during quality improvement committee meetings will protect volunteer physicians and health professionals from the possibility of harassment, public embarrassment, professional isolation—and lawsuits.

This is especially important in small rural communities where the number of physicians and other health professionals is often limited.

Currently Oklahoma is the only state in the nation that does not have a law which protects this essential component of patient care quality improvement. HB 2319 will not limit or prohibit the discovery of any document not otherwise available today, including hospital medical records, employee records, court findings, or arrest or other public records. HB 2319 will not change access to information available under the provisions of the Open Meetings and Open Records Acts.

Without a clear law in place which protects the confidentiality of sensitive information exchanged during the quality improvement process, all Oklahoma hospitals are at risk of losing valuable professional volunteers who are committed to improving patient care. The alternative would be to hire quality reviewers from outside agencies to perform the same functions currently volunteered by local physicians and other health professionals who live and work in the community and are familiar with the local health care environment. In addition to the enormous inconvenience and inefficiency resulting from changing to this alternative quality improvement system, the process would prove extremely costly for hospitals and physicians and, inevitably, for the patients we serve.

During each session of the Legislature, the OSMA lobbying effort fights attempts to allow mid-level practitioners to increase their scope of practice. I have sent several letters requesting OSMA members to contact state lawmakers and urge their opposition to efforts by the Oklahoma Optometric Association to circumvent the court decision currently on appeal to the Oklahoma Supreme Court, by changing their practice act to allow the use of lasers in surgery by optometrists.

On July 7, 1997, Judge Eugene Mathews in Oklahoma County District Court issued a ruling prohibiting optometrists from performing laser surgery anywhere in Oklahoma. The ruling clearly stated laser surgery is the practice of medicine and thus falls under the authority of the State Board of Medical Licensure and Supervision.

Patient safety demands laser surgery on the human eye be done only by qualified medical doctors and osteopathic physicians. Two of the

The ruling clearly stated laser surgery is the practice of medicine and thus falls under the authority of the State Board of Medical Licensure and Supervision.

most widely used surgical lasers in ophthalmology today are the nd YAG laser, a "cold" laser, which treats by vaporizing human eye tissue, and the Argon laser, or "hot" laser, which treats by burning human eye tissue. Whether a surgeon uses a hot laser or a cold laser in the treatment of eye injury or disease, the eye tissue is permanently altered.

On another issue, OSMA continues to play a greater role in the Oklahoma Centralized Verification Organization (OCVO). This is now a true OSMA member service for all Oklahoma physicians. OCVO's vision for the future includes a uniform application system in which physicians and other health care providers complete only one application for privileges at all health care entities. The credentialing process will be accomplished by the OSMA credentialing service (OCVO). You can help make it happen. Encourage your hospitals and managed care plans to participate and contract with OCVO. For more information they can contact OCVO at 918-743-0391.

I'm pleased, too, to report that OSMA Executive Director Brian Foy has been on the job now for several weeks and has worked diligently getting up to speed on the myriad issues facing the association. His will truly be a baptism by fire as the Legislature swings into action this month. I know you join me in promising him our full support at every turn as we work to position OSMA for the upcoming second century of Oklahoma medicine.

Brian and the OSMA staff are working smoothly through what is for our staff yet an-

other transition period, and I would like to take this opportunity to express my deep appreciation to that staff. Without their diligence, loyalty, and hard work, OSMA would not have weathered the last few difficult years nearly as well as it has.

For the past twelve-month period, from January 1997 to January 1998, Kathleen A. Musson has served as the acting executive director. Not only has she been my right arm, she has managed the operations of the Oklahoma State Medical Association in a highly professional, ethical, and capable manner. With Mr. Foy's appointment, she will continue as associate director and as mentioned earlier, Director of Political Affairs. It should be noted and underlined that during her tenure she has been ably assisted and supported by the following staff members: Shirley E. Burnett, comptroller; Susan F. Records, managing editor; Judy A. Lake, legislative assistant; Debbie M. Adams, membership coordinator; Marilyn Fick, secretary (recently named administrative assistant to Mr. Foy); Barbara Matthews, administrative assistant; Toni L. Farrar, administrative assistant; Janet Carr, receptionist; and Sue Graves, receptionist; as well as lobbyist Lynne Stewart White.

Once again, I thank you, the OSMA membership, for allowing me the privilege of serving as your president.

Danni M. Selby, M.D.

Clinical Expression of Myotonic Dystrophy: The Predictive Role of DNA Diagnosis

Billur Can, MD; Frederick V. Schaefer, PhD; Shamim Malik, MD;
Mary Floyd, CLSp(CG); Burhan Say, MD

Myotonic dystrophy (DM), the most common muscular dystrophy of adult life, presents with a variety of clinical and genetic challenges to all involved; patients, their families, and clinicians. The clinical picture is extremely variable and may range from mild adult onset myotonia to severe congenital hypotonia associated with respiratory distress.

An infant born to a mother with DM had remarkable hypotonia, expressionless face, respiratory difficulties, and club feet. Direct molecular genetic testing of the newborn and the mother showed trinucleotide repeat expansion mutations. Genetic counseling issues as well as the value of prenatal diagnosis are presented.

A hypotonic newborn presents with special diagnostic challenges to the physician. Extensive and costly studies may be required for the differential diagnosis in some cases. Congenital hypotonia due to myotonic dystrophy (DM) is often poorly recognized and although it may only represent 2% of the cases,¹ can be eliminated with only a few appropriate observations and detailed family history. In addition, relatively simple genetic testing may provide considerable prognostic information for myotonic dystrophy.

DM is an autosomal dominant disorder with an incidence of 1/8000 in the general population. This adult-onset multisystemic condition

is characterized by marked intrafamilial and interfamilial clinical variability. The clinical presentation can be classified into three categories. The most severe form is the congenital type which is associated with generalized hypotonia and facial diplegia. Other features include respiratory and feeding problems with mental retardation in those surviving past the neonatal period. Talipes and arthrogryposis are additional frequent findings.^{2,3}

Glossary

CTG repeat region: The unstable trinucleotide repeat region on chromosome 19 that is expanded in DM. It is located in the noncoding control region of the flanking gene.

Polymerase Chain Reaction (PCR): A technique in which a short DNA or RNA sequence can be amplified $>10^6$ times by means of two flanking oligonucleotide primers and repeated cycles of amplification with DNA polymerase. Permits analysis of a short sequence of DNA or RNA.

Primers: Small (20 base pairs long) DNA fragments complementary to (so that it will bind) genomic DNA of interest. In the case of PCR, one primer is located on each side of the known mutation. In DM, this area is the CTG expansion sequence.

Restriction enzyme: An enzyme that can recognize a specific sequence of DNA and cut the DNA molecule within the recognition site or at some nearby site.

Southern Blot: A technique devised by Ed Southern, for transferring DNA fragments that have been separated by agarose gel electrophoresis to a nitrocellulose filter on which specific DNA fragments can then be detected by their hybridization to radioactive probes.

Anticipation: The earlier age of onset or increase in the severity of a disorder in successive generations.

Direct correspondence to Billur Can, MD, H.A. Chapman Institute of Medical Genetics, 5300 East Skelly Drive, Tulsa, Oklahoma 74135.

Polyhydramnios and diminished fetal movements can be important prenatal signs. The mildest form is seen in middle-to-old age and is characterized by cataracts, baldness, and minimal muscle involvement. The classical presentation is the juvenile/adult form which is phenotypically variable with myotonia, muscle weakness, cardiac arrhythmias, male balding, hypogonadism, psychocognitive dysfunction, and glucose intolerance.²

The myotonin kinase gene, responsible for DM, has been mapped to chromosome 19 at band q13.3. Further genetic research has identified this area consisting of 5 to 35 copies of trinucleotide repeats (CTG repeats) in normal individuals, to be expanded in individuals affected with DM.⁴ Interestingly, various types of trinucleotide repeat expansions have been observed in a number of other neurologic disorders including fragile-X syndrome; spinocerebellar ataxia, types 1, 2, and 3; Huntington disease; and recently, Friedreich's ataxia.⁵ The individuals affected with DM show an expansion of 50 and over CTG repeats. In the congenital form of this disorder, the number of CTG repeats may reach thousands.²

A remarkable feature of this disorder is its intra- and intergenerational variability. Almost all congenital cases have an affected mother, and anticipation is a well recognized aspect of DM. The disease tends to follow a more severe course with earlier age of onset from one generation to another, specifically if it is transmitted through the mother. It is of great interest that the severity and the age of onset seem to correlate with the size of the expansion, which enables us to predict the course to an extent, thus helping in the management of the patient.^{2,3}

Case Report

A white male infant was born at 33 weeks to a 38-year-old G3 P2 mother by cesarean section with a birth weight of 2072 grams. Apgars were 1 and 4, at 1 and 5 minutes, respectively. The mother's pregnancy was complicated with polyhydramnios, dyspnea, and transient disorientation episodes due to hypoxic spells.

Family history was of great interest since the mother had been diagnosed with DM at the age of 36, during her pregnancy with her previous child. The child is now an 18-month-old girl who is also affected with DM. The mother's father reportedly had the same disorder, but was not diagnosed until the age of 52, two weeks prior to his death.

The baby was extremely hypotonic at the time of birth and required intubation as well

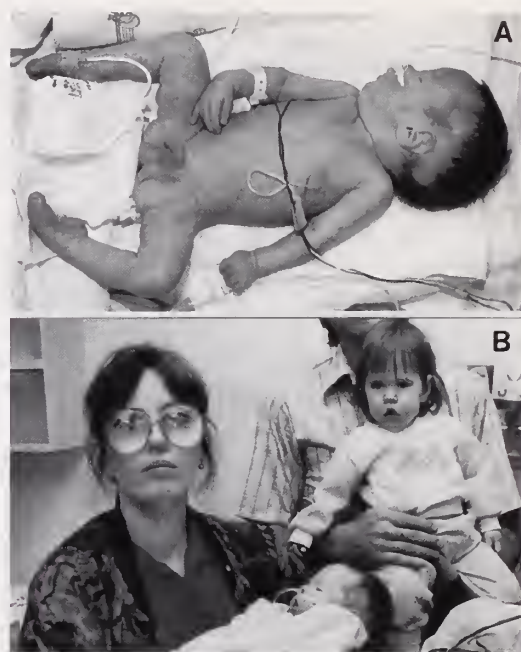


Figure 1A.—The affected child described in this report. Note the expressionless face, hypotonia, and club feet. **1B.** The affected child is shown with his affected mother and his affected 18-month-old sister. The mother and sister display characteristic facial appearances. Especially note the severely impaired vision and expressionless face of the mother and the tented mouth of the toddler.

as mechanical ventilation. The head was dolichocephalic with a high and wide forehead. Facial features included hypertelorism, wide and depressed nasal bridge, and remarkable micrognathia with a tented upper lip. The fingers were long and loose jointed. However, there was camptodactyly involving the second and third interphalangeal joints. Other abnormalities were bilateral pes equinovarus and cryptorchidism (Fig. 1).

Materials and Methods

The polymorphic CTG repeat region in normal individuals (0-50 repeats) as well as a modest expansion of the region (up to 150 CTG repeats), as found in mildly affected myotonic dystrophy patients, were analyzed by direct size determination using polymerase chain reaction (PCR) generated fragments and the bracketing primers 5' GGA-GGA-TGG-AAC-ACG-GAC-GG 3' and 5' Fam-U-GAA-GGG-TCC-TTG-TAG-CCG-GGA-ATG 3'. The typical PCR profile was a denaturation soak at 95°C for 45 seconds. Amplification was performed using 30 cycles of annealing at 60°C for 45 seconds; extension at 72°C for 3 minutes. Standard PCR

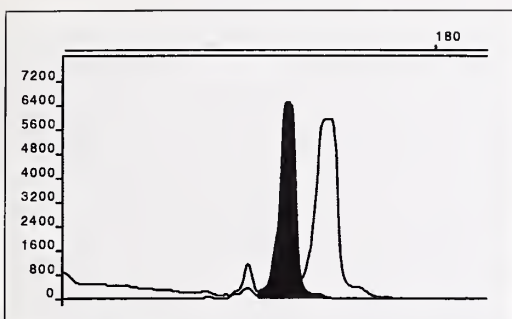


Figure 2.—Illustration of the appearance of the normal peaks found in the DNA of samples collected from the mother (outline peak; 13 repeat length) and child discussed in this report (solid peak; 12 repeat length). The absence of a normal sized CTG repeat allele inherited by the child from his mother is sufficient presumptive evidence to suggest that the child will be affected by myotonic dystrophy. However, the severity cannot be predicted. This PCR-based assay has the advantage to be able to be performed within 24 hours on a priority basis and has sufficient sensitivity, using fluorescence-based technologies, to easily resolve fragments separated by one CTG repeat.

reaction conditions were employed with the addition of 2% taq extender (Stratagene). The fluorescent fragments were sized on an ABI 373 DNA sequencer using Genescan and Navigator software.

For the larger expansions, Southern analysis was performed. Patient DNA was digested into fragments using the restriction enzymes Eco RI or Nco I. The fragments were separated by size in a 0.8% agarose gel, transferred by capillary action to a membrane (Immobilon-N (Millipore)) for reaction with a P32-labeled probe to the DM locus. Large expansions are detected by increased sizes of the known bands.⁶

Molecular Results and Conclusions

Initial examination of the DNA from the patient and his mother identified two normal sized alleles of 12 and 13 CTG repeats, respectively. Since the allele found in the child differed from that found in the mother, we were able to tell that she had inherited the father's normal allele and the mother's expanded myotonic allele. Therefore, further testing designed to detect and size the expanded myotonic allele was performed (Fig. 2).

The Southern gel analysis, using two different detection systems (Nco I and Eco RI), identified an enlarged band in the mother and the affected child (Aff1). The mother had a diffuse, expanded allele with a size ranging from 2500 to 3000 repeats (mildly affected $x > 100$ repeats; moderately affected $x > 1000$ repeats; congenitally

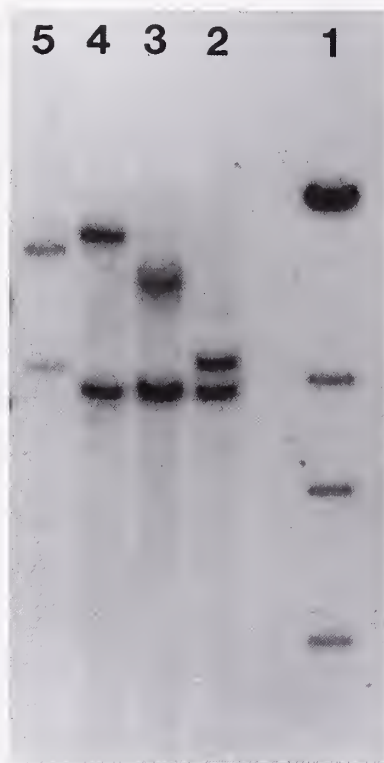


Figure 3.—A gel image illustrating the results of Southern gel analysis that can detect large increases in size. Lane 1, size standard; lane 2, normal control illustrating sizes of both normal, polymorphic bands; lane 3, mother's sample with a normal band and a much larger and diffuse 2000-2500 repeat DM band; lane 4, congenitally affected child described in this paper with about a 4000 repeat DM band; lane 5, congenitally affected sister with a different normal allele inherited from father and a 3000 repeat DM band. Although the severity of the condition can now be predicted by this technique, the results may require a week or more to be generated using this method.

affected $x > 2000$ repeats). The child (Aff1) had an expansion of greater than 4000 repeats which is considered at the upper range for congenitally affected children. The 18-month-old child (Aff2) had a slightly smaller expansion of about 3500 repeats, which also correlates with the congenital form (Fig. 3).

Discussion

Congenital onset of symptoms of DM is considered likely for patients with expansions of 2000 trinucleotide repeats or more (150 repeats normal threshold to cause clinical onset of symptoms). However, as these findings indicate, the mother's expansion to 2000 to 2500 repeats can result in a relatively normal early childhood with onset of symptoms in adolescence. She is now severely affected but still managed to maintain a stable long-term relationship with her partner and delivered two children.

This case also illustrates the variability in the anticipation effect characteristic of DM. Both children showed a dramatic increase in repeat size into the severely congenital onset range with a concomitant neonatal presentation of symptoms. The affected child, described in this report (Fig. 1), has one of the largest number of repeats ever

reported in the literature (4000 repeats) and the concomitant severe clinical presentation.² Nonetheless, if a child can survive the neonatal period it has a chance at a relatively long-term, though impaired survival. In this case the child has survived the neonatal period and is being discharged.

Congenital hypotonia due to myotonic dystrophy is easy to miss if the transmitting parent is not manifesting the typical clinical picture or has not been diagnosed. Even though DM is responsible for only about 2% of the cases of neonatal hypotonia,¹ a careful family history, as this case illustrates, can lead us to select the patients that need the DNA testing for DM. The testing is not only a relatively simple procedure but also provides accuracy in diagnosis and considerable prognostic information. The congenital form of myotonic dystrophy must be taken into consideration in the differential diagnosis of maternal polyhydramnios, neonatal hypotonia, and respiratory failure. Polyhydramnios develops due to the inability of the fetus to swallow. Generalized muscle weakness and foot deformities are other important features. The risk of prematurity and neonatal mortality is increased. If the infant survives the neonatal period, mental retardation, behavioral disturbances, myotonia and, in most cases, cataract may develop. Our patient was exhibiting the typical symptoms of congenital myotonic dystrophy, and the molecular studies indicated a significant expansion in the trinucleotide repeat region of the myotonin kinase gene which was in concordance with the congenital form.²⁻³

DM is known to be a classical autosomal dominant disorder in respect to equal incidence in, and transmission by, each sex. However, maternal transmission has been documented in more severe and almost all congenital cases.²⁻³ Congenital cases generally show the largest expansions in the gene.⁷ DM does not interfere with the fertility of the females whereas it causes testis atrophy in most affected males, thus resulting in diminished male fertility. There are additional studies suggesting the survival disadvantage of sperm carrying expansion mutations exceeding a certain size. It is clear that more work will be needed to understand the function and significance of the myotonin kinase gene and its protein to clarify the cause of anticipation, specifically through maternal inheritance.²

Genetic counseling is strongly recommended for individuals affected with DM. Inheritance pattern should be explained as well as the potential for expansion of the mutation resulting in earlier age of onset and increasing severity of symptoms

in successive generations. Extreme variability of clinical presentation, even within the same family, should also be stressed. Recent advances in molecular genetics have enabled us to perform direct prenatal diagnosis by studying the fetal cells obtained through chorionic villus sampling or amniocentesis.⁸ Pregnant women with DM should be informed of the possibility of the congenital form of this disorder and that the symptoms may temporarily worsen during pregnancy.² If medication is required, the potential teratogenicity of the drugs used should be evaluated.

In the future, the clarification of the myotonin kinase gene function will enable us to understand the cause of the variability and the unusual inheritance pattern of this disorder. Meanwhile, DM is one condition where molecular genetic analysis is an invaluable tool to the physician faced with the dilemma of identifying the etiology of neonatal hypotonia and the risk to future pregnancies.

Acknowledgment

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Preimplantation Genetic Diagnosis: Prevention of Serious Genetic Disorders

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Couples who are at high risk of passing a severe debilitating genetic disorder on to their offspring now have an option for preventing their future child from being affected by the disorder. The new field in medical genetics, preimplantation genetic diagnosis (PGD), involves testing single cells biopsied from in-vitro derived preimplantation stage (~8-cell) preembryos and assessing each of them as to whether it is affected or not. Thus, PGD dramatically reduces the risk of a couple having a child afflicted with a genetic disorder by diagnosing an affected preembryo before it is transferred to the mother for implantation and establishment of pregnancy. This preventive procedure allows parents who are known carriers of a severe genetic disease to have unaffected children.

Preimplantation genetic diagnosis (PGD) is a powerful new tool that is being utilized in disease prevention. Instead of treating a genetic disease after it has manifested itself in an individual, this procedure facilitates the birth of a healthy child, free of the debilitating effects of the genetic disease carried by his/her parents.¹⁻³ Presently, most couples who are at high risk for having children with genetic disorders are limited to prenatal diagnosis after a pregnancy has been established. Under such circumstances, some couples may choose not to become pregnant if they face a decision

about continuing a pregnancy when testing reveals that a child is affected by a severe genetic disorder. The option of PGD provides a new prenatal alternative to chorionic villus sampling (9 to 11 weeks) or amniocentesis (14 to 20 weeks) for parents who are at high risk. In contrast, PGD is performed very early on eight-to-sixteen-cell (day 2.5-3) preembryos prior to their transfer into the uterus. This procedure offers a couple the opportunity to dramatically reduce the risk of having a child afflicted with a genetic disorder by diagnosing an affected preembryo before it is transferred to the mother for implantation and establishment of pregnancy.

Patients interested in PDG undergo routine in-vitro fertilization (IVF) to produce the preembryos that will be biopsied and tested for the genetic disorder in question.

Embryo Biopsy

Once IVF-derived preembryos reach the eight-to-sixteen-cell stage, they are placed into individual microdrops of medium in preparation for removal of one or two blastomeres. The biopsy is performed using an inverted microscope and micromanipulators to visualize and extract the individual blastomeres. Preembryo biopsy is accomplished by making a slit in the zona pellucida with a microneedle and subsequently inserting a micropipet with a polished tip (~30 μ m in diameter) through the slit and positioning the tip adjacent to a blastomere. The blastomere is then gently aspirated into the micropipet, the micropipet removed, and

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**Table 1. Centers Offering
Preimplantation Genetic Testing in the U.S.**

Boylar College of Medicine, Houston, TX
Jones Institute, East Virginia Medical School, Norfolk, VA
Genetics and IVF Institute, Fairfax, VA
New York Hospital-Cornell University, New York, NY
New York University School of Medicine, NY
Reproductive Genetics Institute, Illinois Masonic Hospital, Chicago, IL
St. Barnabas Medical Center IVF Program, Livingston, NJ

Note: Other facilities are currently establishing preimplantation centers, including H.A. Chapman Institute of Medical Genetics, Tulsa, OK

the blastomere gently expelled into a separate microdrop of medium. If required, this is repeated on an additional cell. Single blastomeres are placed into individual microcentrifuge tubes for DNA analysis or are fixed to glass microscope slides for fluorescence in situ hybridization (FISH) analysis.

Genetic Analysis

Currently two methods are used for PGD of human preembryos. The first utilizes the polymerase chain reaction (PCR) procedure to analyze specific sequences of DNA. Analysis of DNA via PCR involves placing the individual biopsied cell(s) into a microcentrifuge tube for amplification of the DNA sequence particular to the disease in question.²⁻⁶ The PCR technique consists of oligonucleotide primer-mediated enzymatic amplification of the specific target DNA through the use of DNA polymerase and successive cycles of (1) heat denaturation of the double-stranded template, (2) primer annealing, and (3) extension of the annealed primers with DNA polymerase. Additional cycles of amplification result in a continuous doubling of, and exponential increase in, the specific sequence copy number as newly synthesized copies become available for primer binding. This technique is well established and is capable of amplifying a single sequence from the human genome approximately 10^8 to 10^9 copies in thirty amplification cycles. The amplified DNA is submitted to gel electrophoresis and examined for the presence/absence of the specific gene product in question.

The first PGD cases performed in humans utilized single-cell PCR to determine gender in preembryos at risk for X-linked recessive disorders.⁶ It was a logical beginning since the X and Y chromosomes contain large repetitive DNA sequences that could readily be amplified, thereby increasing the accuracy of the diagnosis.⁷ Today, the technology has advanced so that small single-copy sequences can be amplified from single cells with very high efficiency.^{8,9}

The second method used for PGD in human preembryos is a cytogenetic technique that involves fixing the cell(s) to a glass microscope

slide. This is performed for those patients requiring testing for chromosomal anomalies. The procedure uses the FISH technique, which allows the analysis of structural chromosomal anomalies as well as the assessment of the number of chromosomes.^{8,10,11} The FISH technique utilizes chromosome-specific DNA probes that hybridize to complementary regions of their specific chromosome. Probes labeled with fluorophores allow visualization of the hybridized probe(s) when observed under a fluorescence microscope. The presence/absence of, location and number of chromosome specific FISH signals indicate the presence of aneuploidy, polyploidy, and/or chromosomal rearrangement of the preembryo being tested. This FISH technique can determine Down syndrome, Turner syndrome, abnormalities of X and Y chromosomes for X-linked disorders, and various lethal chromosomal rearrangements.^{8,10,12}

Currently, there are over 20 facilities around the world where preimplantation trials have been reported.^{12,13} There have been reported misdiagnoses (2/23 births) involving preembryo gender determination for X-linked births. These misdiagnoses in the first few cases attempted were attributed to lack of adequate control measures. This has subsequently been remedied by incorporation of proper controls which account for failure of PCR amplification.

As this article was being written, seven facilities in the United States offered PGD to patients who are known carriers of genetic disease¹⁴ (Table 1). Additional facilities, including the H.A. Chapman Institute of Medical Genetics in Tulsa, OK, are in various phases of initiating clinical PGD testing.

Patient and Genetic Criteria

Not every potential patient will make a good candidate to undergo PDG. There are two separate selection factors, reproductive and genetic, that will need to be assessed on a per couple basis. Prior to being admitted for testing, the patient requesting PGD analysis undergoes extensive counseling sessions detailing each step of the procedure. In addition, they will undergo a complete fertility workup to determine whether they are candidates to undergo oocyte retrieval and IVF.

Patients under consideration for PGD will undergo a genetic evaluation to establish their genetic family history and ascertain their disease or carrier status. In order for patients to participate in the PGD program it has to be verified that they are at significant genetic risk of passing on a genetic disease to their child. Patients for whom PGD would be an option include

these: (a) affected with a genetic disease themselves; (b) having affected children or other family members; and (c) having a high risk of being carriers of a specific genetic disorder.

Candidate patients will undergo evaluation to determine whether they have a single gene defect or chromosomal defect. For single gene defects each parent will be tested for the presence of normal and/or mutant alleles (disease locus or closely linked locus if disease locus is difficult to test). Genetic tests currently offered under PGD include alpha 1-antitrypsin deficiency, cystic fibrosis, Duchenne muscular dystrophy, myotonic muscular dystrophy, fragile X syndrome, hemophilia A, Huntington's disease, Lesch-Nyhan syndrome, retinitis pigmentosa, RH-factor, Tay-Sachs disease, and X-chromosome linked recessive disorders.^{12,15} As additional deleterious genes are discovered and sequenced they will also be added to the list of available tests. Theoretically, once the DNA sequence of any deleterious gene is known, a test can be designed to screen for that gene utilizing the above mentioned technologies.

Advances in technology have increased the accuracy of diagnosing a single-copy gene from a single cell. A significant advance has been the use of fluorescent PCR with detection by gel capillary electrophoresis or automated DNA sequencing. Fluorescent PCR utilizes primers labeled with a Fluorescent molecule. Using an automated DNA sequencer or gel capillary electrophoresis system produces a highly sensitive technique for analyzing single-cell PCR products.^{9,16} The sensitivity of the system is estimated to be 1,000 times more sensitive than conventional agarose or acrylamide gel electrophoresis protocols.¹⁷ In addition, the time required to diagnose a single-cell PCR product can decrease to approximately 15 minutes per sample compared to 1 to 2 hours in conventional agarose analysis. The advent of new technologies that rapidly diagnose single gene disorders will greatly assist in the diagnosis of single gene disorders in single cells biopsied from eight-to-sixteen-cell stage preembryos.

Conclusions

Genetic testing utilizing PGD represents a new alternative for parents who are at high risk of having offspring with debilitating genetic disorders. This preventive procedure allows parents who are known carriers of a severe genetic disease to have unaffected children. Since PGD is preventing disease rather than treating disease, it presents tremendous ramifications in the overall well-being of families and individuals afflicted with genetic disease.

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Advances in the Management of Impotence

Johnny B. Roy, MD

With an estimated ten to twenty million men in the United States suffering from impotence, major advances have been made relative to the understanding of the pathophysiology of this disease. These advances have been translated into improved treatment options.

Several exciting novel pharmacotherapeutic agents are in the final phase of their clinical trials. These should provide more favorable prospects for men with sexual dysfunction.

Impotence is the consistent inability to initiate and sustain an erection to allow for satisfactory sexual intercourse. As common as impotence is, it is still vastly underestimated, poorly perceived, and until very recently, ignored by the medical community. In this country, impotence, which more precisely should be referred to as erectile dysfunction, afflicts ten to twenty million men.¹

The earliest epidemiological data on the prevalence of this condition was the result of the pioneer work of Alfred Kinsey of the University of Indiana in 1948.² He reported that 25% of men over sixty-five years had erectile failure. In the early '80s, Slag and associates, on evaluating 1180 men at an outpatient medical clinic, discovered a 34% incidence of impotence.³ Most recently Feldman and his co-investigators published results of their Massachusetts Male Aging Study (MMAS); they

discovered that 52% of men between the ages of forty and seventy years complained of impotence.¹

Mechanism of Erection

Erection occurs as a result of a complex interplay between the neurologic and the vascular responses in the erectile tissue. The erectile tissue is confined to the two corpora cavernosa of the penis. It is the turgid engorgement of this spongy corporal tissue that leads to erection. When an appropriate sexual stimulation occurs via mental or local stimulus, neurotransmitters are released by the autonomic nerves, which leads to decrease in the peripheral resistance of the sinusoidal smooth muscle in both corpora as well as an increase in blood flow. This increase in the flow fills the sinusoidal spaces, and the pressure created in the corpora impinges on the little veins exiting the tunica albuginea, thus helping trap the blood and sustain the erection. These neurotransmitters are non-adrenergic, non-cholinergic in nature and probably include the following: nitric oxide, PGE, VIP, substance P and calcitonin gene-related peptide (Fig. 1.) In essence, erection is basically a vascular event, but since this vasodilatation is dependent on and mediated through neurotransmitters, one can qualify erection as a neurally mediated vascular phenomenon.^{4,5}

The appreciation of the role of the neurotransmitters in vascular and non-vascular smooth muscle relaxation aided immensely, not

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only in the understanding of how erection occurs, but also in the treatment of impotence.

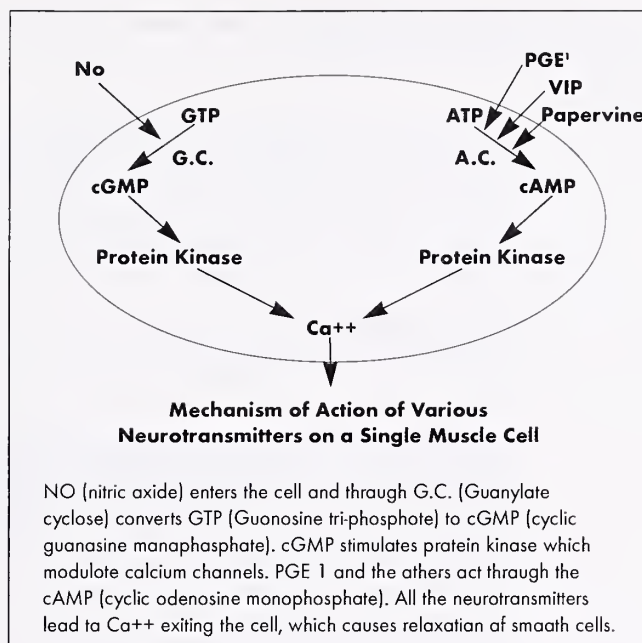
Diagnosis

The first step in the diagnosis of erectile dysfunction is a good medical and sexual history. A written patient questionnaire is preferable as it allows the individual to respond to sensitive issues relating to frequency, quality, and presence of morning erections, as well as other sexual activities. It is also important to have the sexual partner involved in this interview, either initially or subsequently, whenever feasible. A good physical examination should follow with special emphasis paid to the examination of the genitalia and perineum and special attention directed towards any neurologic or vascular changes. Basic laboratory studies such as CBC, urinalysis, and chemistries are ordered to unveil any contributing factors such as diabetes, hyperlipidemia, renal failure, etc. Even though the role of hormonal factors in the etiology of impotence is not significant, serum testosterone should be ordered since hypogonadism affects libido. If serum testosterone is low, one needs to assess serum prolactin.⁶ Other tests like duplex doppler testing for penile arteries,⁷ nocturnal penile tumescence testing, plethysmography, and biothesiometry, as well as pharmacological challenge by intracorporal injection of vasoactive drugs to assess the vascular status of the penis should be ordered with discretion and tailored to the clinical setting. Due to the potential errors in the conduction and the interpretation of all these tests as well as the cost involved, this is one clinical entity where a goal-directed approach is encouraged. The aim of this goal-directed approach is to fulfill the intended need, bypassing superfluous tests that may be impertinent and costly.⁸

Management

Satisfactory treatment is invariably based on managing the underlying cause. At times the differentiation between the psychological factors and the biogenic causes is difficult because of a strong interplay between these two factors. If the cause is clearly identified as psychological in nature, psychotherapy, behavior therapy, or marital counseling is recommended.

Attempts to treat sexual inadequacy are as old as recorded history.⁹ Centuries ago women were believed to contribute to the etiology of impotence (to wit: Hippocrates blamed this ailment on lack of womanly attraction, while the ancient



Hindus ascribed it to consorting with distasteful women!) In the beginning of this century, marriage was part of a prescription for erectile failure.¹⁰ (A 1908 medical textbook stated, "there is no reason why adequate sexual power should not be recovered under the physiologic influence of married life.")

According to the recently released erectile dysfunction clinical guidelines, three accepted treatment modalities are recommended in those with physical causes.¹¹

1. Vacuum constriction device. The basis for this mechanical means is to create vacuum around the penis, which draws blood to the corporal tissue, causing tumescence; then a constricting band is applied at the base of the penis to maintain the rigidity.

2. Penile injection therapy. Here vasoactive drugs (Papaverine, Regitine, PGE1, or chlorpromazine) are injected directly into the penis. These medications relax the smooth muscle of the erectile tissue as well as dilate blood vessels, thus allowing erection to occur.

3. Surgery. This involves implantation of various penile prostheses. There are basically two types. One is semi-rigid and the other is inflatable.

Other surgical procedures such as arterial revascularization, as well as ligating penile veins for "venous leak or venogenic impotence," were not recommended by the clinical guideline panel.

In January 1997, a novel product for induction of erection became available utilizing PGE, urethral inserts. This product goes by the name of MUSE® (Medicated Urethral System for Erection). As the pellet is delivered intraure-

thrally, it dissolves and diffuses from the corpus spongiosum to the corpora cavernosa. From the data of the clinical trials as well as the authors' experience, more than half the subjects achieve satisfactory response during the course of treatment.¹²

Future Potential Drugs

The following agents are undergoing clinical trials and may be made available in a year or two.

1. Sildenafil or Viagra®. As mentioned earlier, nitric oxide (NO) is considered to be a major smooth muscle relaxant and a major player in the induction of erection. NO acts through its second messenger, cGMP (cyclic guanosine monophosphate). This latter is inactivated by phosphodiesterases (PDE). Sildenafil, a type V PDE inhibitor, was discovered to inhibit the inactivation of cGMP; consequently, the smooth muscle relaxation is improved and prolonged.

Studies in England and Europe on mostly the psychogenic type of impotence with escalating doses of 10, 25, and 50 mg resulted in satisfactory erections in 64%, 79%, and 88%, respectively.¹³

A Phase III multicenter-center study is ongoing in the United States to assess potency of this much heralded erectogenic drug.

2. Phentolamine or Vasomax®. This adrenoceptor antagonist has been used for penile injection for many years. Gwinup, in 1988, was the first to show its effectiveness orally.¹⁴ Later on other investigators corroborated its erectile response in 42% of men with psychogenic or mild vascular impotence.

In a phase II clinical trial, the recommended 40 mg dose produced minimal side effects, with stuffy nose reported in 2% of study subjects.

In a phase III study in Mexico, again 40% of men could obtain erections 15 to 30 minutes after taking the tablets.

In the U.S. an ongoing phase III clinical trial was launched in late Fall 1996 with the aim of recruiting 1,000 subjects.

3. Apomorphine. This selective dopamine agonist has been shown, through stimulating the brain arousal center, to be erectogenic in rats. Its effectiveness has been hampered by its unacceptable adverse effects such as nausea, vomiting, and hypotension. Newer formulation utilizing a slow release buccal application has tempered these side effects.¹⁵ A large scale phase III protocol in the United States is ongoing.

4. Nitroglycerin Cream. Since the landmark observation by Tally and Crawley in 1985 that transdermal nitrate application to the genital area caused tumescence, several reports indicate sporadic success with the technique.^{16,17} A newer aqueous nitroglycerin, which has been found in a controlled study to be hemodynamically and pharmacokinetically superior to the commercially available nitroglycerin, is currently undergoing a multicenter trial.^{18,19} The outcome of this protocol would follow the completion of the study in late 1997.

Advances in the understanding of the pathophysiology of the erectile process has revolutionized the management of impotence. Given the currently available effective means of treatment combined with the soon-to-emerge pharmacotherapeutic agents, the prospect for men with sexual dysfunction has never been more favorable.

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The Changing Requirements for Health Manpower and the University of Oklahoma College of Medicine

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Sweeping national changes in health care financing and delivery are forcing major modifications in the numbers, types, and distribution of physician manpower thought to be appropriate for the new paradigms. Not surprisingly, these changes are exerting great pressure on medical education institutions to also adapt to the changing requirements.^{1,2} In Oklahoma, these financial and policy changes are accompanied by demands upon the colleges of medicine to increase the numbers of physicians who locate their practices in rural locations. The maintenance of a comprehensive and well balanced basic and advanced medical education effort within these complex and shifting requirements continues to tax the abilities of all faculties, including the Oklahoma University College of Medicine (OUCOM).

The Appropriate Number of Physician Graduates

At the same time that Oklahoma needs more physicians, there is general consensus that the numbers of physicians graduated in the U.S. should be decreased. A recent report by the Pew Health Professions Commission³ recommends reducing the number of medical students by 20 to 25 percent by the year 2005, and that this should be done by *closure of schools* rather than class size reduction. Health care reform itself may directly affect the numbers of graduates through anticipated closure of some medical

schools.⁴ Two schools in Philadelphia and two others in New York City recently merged into single systems; discussions that may lead to similar action are ongoing in San Francisco and Chicago. Deliberations about the numbers of physicians that should be produced must consider educational capacity and value, ability to recruit and retain physicians, and regional needs for medical care. Based upon the low physician/population ratio in Oklahoma, (168/100,000 population) and its position below the national average (ranking 47th in the nation),⁵ it would appear reasonable to maintain the present medical school class size of approximately 150.

Of greater immediacy regarding the perceived oversupply of physicians nationally is the growing concern about the large proportion of foreign medical graduates who enter the system as resident physicians. It is acknowledged that this phenomenon is a major contributor to a perceived oversupply of physicians, including specialists who choose careers in metropolitan areas. Despite the significant contribution to quality medical services in our state and elsewhere, it has been suggested that rather than reducing the numbers of U.S. graduates, the number of foreign medical graduates offered residency positions be sharply reduced.

Relation of Training Site to Location of Practice

State-specific information about locations chosen for practice by resident physicians has been

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Table 1. University of Oklahoma College of Medicine Percent of Senior Class Choosing Certain Specialties

Program	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Family Medicine	10	6	4	11	17	23	19	20	25	19
Internal Medicine	28	23	31	31	21	23	22	19	19	25
Pediatrics	7	6	3	8	6	4	8	13	3	7
Surgery	18	16	15	12	15	6	9	6	5	4

recently reported.⁵ In the percentage of the resident pool who remain in the state of their training, Oklahoma ranks 20th in the U.S., somewhat better than average for all schools. It ranks 30th with 52 percent retention of generalists and 17th with 47 percent retention of specialist residents. The college is sometimes criticized for not retaining a greater proportion of graduates within the state, but the college has relatively little influence over ultimate location of practice. Another way to examine the relation between graduate education and practice site is analysis of where those in practice obtained residency training. In this regard, Oklahoma fares relatively well. Of physicians practicing in the state, 52 percent received their training here (with a national rank of 11th place). Oklahoma ranks especially well in regard to practicing generalists, 59 percent of whom received their resident training in the state (with a rank of 12th in the nation). Likewise, 47 percent of specialists in the state received their training here (Oklahoma ranks 11th in the nation).

As pointed out above, Oklahoma ranks low (47th) in the ratio of physician to population: 168/100,000, compared to 259/100,000 for the nation. States with low ratios tend to be rural, and include Indiana (40th), Arkansas (43rd), Iowa (44th), South Dakota (45th), Nevada (46th), Wyoming (48th), Alaska (49th), and Idaho (50th). Of perhaps greater significance, Oklahoma scores low on the proportion of resident physician trainees (21/100,000 compared to 39/100,000 for the nation), with Oklahoma occupying 42nd place. Consideration of the number of residents in a given state has not generally been given great attention. However, it may indeed be an important determinant of the number of physicians in each state. These data strongly suggest that Oklahoma would benefit by an increased number of resident physicians.

Proportion of Generalists to Specialists

In the recent past, approximately 30 percent of U.S. graduates have become generalists and 70 percent have become specialists. This disparity no longer exists everywhere, especially not in Oklahoma, where the ratio of chosen careers of OUCOM graduates is approximately 60 per-

cent generalist and 40 percent specialist. Many authorities recommend a 50/50 mix between primary care physicians and specialists (and subspecialists).⁶ It is well to keep in mind that estimates of medical and health workforce needs are imprecise, and care should be taken in de-emphasizing training of needed specialists. The debate should not become either/or in character; rather, the discussion is really about the relative need for all medical disciplines and how schools of medicine can most appropriately respond to many competing needs. There is no question but that specialist care will continue to be necessary in the future. By far the most important producer of this group of practitioners in Oklahoma is the OUCOM. As medical science and knowledge continue to rapidly move forward, the care of patients will be more dependent upon recent information and newer technology, skills, and techniques. The current projected needs for more primary care, and fewer specialists, has been challenged by Cooper,⁷ who points out that it would be very easy, and detrimental, to move too far in the production of fewer specialists and many more primary care physicians.

While there are certain overlapping areas of care provided by almost all physicians, the majority of services provided by specialists differ significantly from care provided by generalists. Primary care physicians ordinarily provide care at lower levels of intensity than do specialists, while caring very well for the majority of daily illnesses experienced by the population. For prevention of many lifestyle-associated conditions, the results of primary care physicians are equal to or greater than those of specialists.⁸ Specialist care, needed for the most ill of our citizens, heavily dependent on organized technologic support, is still in great demand, certainly in our state. As HMOs further restrict access to specialty care, the public may demand easing of the barriers to access to specialists. The recent report of the superior outcomes for stroke patients cared for by neurologists compared to generalists⁹ is likely to be followed by additional studies of comparative outcomes. Such information will be helpful in making future determinations of the relative need for different medical disciplines. Prepa-

ration and accredited training of such specialist care givers is longer in duration and by the very nature of the respective disciplines, requires more inpatient educational experiences.

The efforts of OUCOM in stimulating interest in primary care among its students is reflected in the recent change in the proportion of senior students who seek training in the primary care specialties as shown in Table 1. The decline in the percentage of individuals entering family practice that began in 1988 reflected national trends. However, in 1991 the percentage began to increase and now has reached pre-1988 levels. The proportion electing to go into internal medicine was generally lower during the years 1992-1996 compared to 1987-1991, while the proportion choosing pediatrics has always been less than for the other disciplines. The percentage of senior medical students electing to enter surgical specialties varied between 12 to 19 percent until 1993, when there was a sharp reduction, which remains.

Overall, beginning in 1993, there has been a steady increase in the proportion of OUCOM graduates entering primary care specialty training programs. The ratio of primary care to non-primary care specialties of 60/40 exceeds that recommended (see above) and is far greater than the national average. During the recent period of reduced overall financial support, especially by the University Hospitals for resident positions, and in recognition of the need to change the ratio of specialists to generalists, the college has maintained or expanded generalist residency positions, and eliminated fifteen subspecialty training slots.

Relocation of Educational Experiences

Another result of the dramatic changes that are affecting medical education is the growing pressure to relocate educational experiences from the bedside to the ambulatory setting. This situation creates a new series of requirements and difficulties. A major consideration is the additional burden placed on busy ambulatory services. At the same time, reduction in the number of residents in hospitals will place a heavier load on an already overworked clinical faculty caring for inpatients. As managed care becomes more prevalent, the community physician may well have less time or interest in carrying a significant teaching load. When compensation and even continued contracting with a physician in a managed care plan is dependent in great part upon the number of patients seen per hour or day—measures of

“efficiency” as determined by the insurance payor/contractor—the slowdown entailed in teaching students or supervising residents may not be economically feasible.

Some generalist departments already have encountered problems regarding residency training in ambulatory settings. Many HMO programs refuse to accept residents as the primary care provider and insist on limiting even the fully licensed resident physician to the level of nurse or physician assistant. Further, limitations are often imposed that provide payment only to physicians certified by the appropriate specialty board and specifically contracted to care for patients covered by the respective HMO. Without relief from such policies, residency programs, including several at OUCOM, especially in generalist categories, may not be able to attain the minimum number of patient encounters required for residents.

Financing Medical Education in Oklahoma

The various problems facing academic health centers across the country, shared by Oklahoma institutions, represent serious threats to continued financing of medical education. Formerly, the vast majority of Medicaid and unsponsored patients were cared for in public hospitals and clinics. In central Oklahoma most such patients received care in the OUCOM teaching hospitals. However, there has been a steady erosion in the numbers of such patients, especially noticeable in health care for women and children. The OUCOM faculty practice plan and the University Hospitals are experiencing serious disadvantages in the increasingly competitive marketplace for medical and health care services. At the same time resources to provide care for those without coverage continue to decline.

Another concern is that support for graduate medical education (house staff, or interns, residents, and fellows) through Medicare reimbursements is likely to be decreased. Historically, payments have been made to hospitals rather than to the training programs themselves. This is no longer a desirable mechanism for financing medical education for at least two reasons. First, since inpatient care is decreasing and will decline much more, and since Medicare reimbursements depend on hospitalized patients, there will be a substantial reduction in monies. Second, as support for inpatient training wanes, new funding sources to support ambulatory training must be found.

One highly attractive proposal for support for medical education is the levying of an all-payor

Table 2. Funding for Primary Care Residents Through the Physician Manpower Training Commission

Year	Family Medicine	% Change	Other Resident ¹	% Change	Total Residents	% Change	Total PMTC Funds	% Change
1993	\$3,851,047	-	\$944,284	-	\$4,795,331	-	\$6,171,994	-10
1994	\$3,371,514	-	\$944,284	-	\$4,315,798	-10	\$5,554,795	-
1995	\$3,371,514	-	\$475,000	-49.7	\$3,846,514	-10.9	\$5,557,661	+0.5
1996	\$3,371,514	-	\$475,000	-	\$3,846,514	-	\$5,190,508	-6.6
1997	\$3,846,514	+14.1	0	-100	\$3,846,514	-	\$5,190,508	-
1998	\$3,846,514	-	0	-	\$3,846,514	-	\$5,490,245	+5.8

¹ Internal Medicine and Pediatrics

tax, borne by all carriers, not just the federal government. Whether this is desirable at the national level is debatable, but serious consideration should be given to this proposition in our state. Such an arrangement would be very helpful in ensuring the continued viability of medical education, particularly if the funding went to the colleges rather than to hospitals.

Approximately 12 percent of the 1995-96 budget for OUCOM, including all residency programs, was provided through state appropriations of tax-generated revenues; approximately 50 percent is generated directly by the faculty through fees for patient care services and an additional 23 percent through grants and contracts. Thus, college finances are heavily dependent on the earning capacity of faculty. Declining reimbursements for patient care therefore threaten the stability of educational programs, certainly in generalist areas, where compensation already is far less than among the specialties. Consideration should be given to provision of monies required to move more of both undergraduate (medical students) and graduate medical education (residents) into the communities and ambulatory care sites. Support is required not only for necessary resident positions, but also for recruitment of additional staff and faculty on the OUHSC campus as well as for local communities.

Oklahoma has been fortunate in that the legislature has provided line-item funding for training primary care physicians through the Physician Manpower Training Commission (PMTC). PMTC continues to play an important role in the education of family physicians and other primary care practitioners through partial stipend support, scholarships, and incentives for rural practice location. This program has assisted in the placement of 20 to 30 physicians per year in small Oklahoma communities that otherwise perhaps would not have occurred. Unfortunately, funding of the PMTC through the legislature not only has not kept up with inflation costs, there has been an actual reduction in funding,

especially for the vital stipends for generalist residency training. In Table 2 is shown the recent history of PMTC funding. There has been an 11 percent reduction of the overall funding for PMTC in the past six years. Funding reductions have also forced a realignment in the kinds of training supported. The necessity of preserving support for family medicine training has resulted in loss of all funding through PMTC for other generalist training, specifically in internal medicine and pediatrics. Further, the PMTC reductions have taken place to a greater extent in funding for residency training, with a reduction of approximately 20 percent since 1993. The modest increase in funding provided PMTC in 1998 was earmarked for nonresidency support. This loss of resources through PMTC has resulted in shifting the burden of support for medical education even further onto faculty-generated resources. Additional financial support and less restrictive policies for this program are needed if its goals are to be fully realized. Further, it is not generally recognized that current PMTC funding does not provide for full stipends for even those trainees receiving support through PMTC, leaving the colleges to absorb these costs through operating funds earned by full-time faculty in clinical departments (predominately the specialties), and/or through the necessary and rigorous cost-shifting in the University Hospitals.

Results of the OU College of Medicine (OUCOM) Programs

The OUCOM has always embraced the philosophy of providing a broad-based medical education and of producing high quality physicians, the majority in generalist care, while also responding to the need for quality specialist education.¹⁰ The college is increasing the number of residents who receive rural training and experiences. The Family Medicine Residency Program in Enid provides two years of training for residents who have completed an initial year on the Oklahoma City campus. Other rural experiences in graduate medical education include Ada (obstetrics/gy-

necology), and Chickasha (family medicine and pediatrics). These rotations for residents complement the rural preceptorship program which requires all of our medical students to participate in a four-week rural preceptorship prior to graduation.

Conclusion

Assuming that resources become available and that other elements of "health care reform" support the education mission of academic health centers, the efforts of the OUCOM should continue to be fruitful. Nevertheless, improved administrative flexibility and performances will be required. Experiences in other states indicate that shifting medical education into ambulatory experiences in community facilities can be successful, acceptable to peer academicians and accreditors, and also desirable.

Academic health centers are large, complex, have multiple interrelated responsibilities and cannot easily respond rapidly to changing requirements, despite willingness to respond and recognition of the need. Finally, the "professional pipeline" effect, at least seven years in duration for medical school and residency training, means that changes in the makeup of the workforce will not be immediately realized.

Further development of rural graduate training programs will depend upon the availability of on-site full-time faculty to oversee the increasingly complex program coordination, and to fulfill the progressively more rigorous academic and accreditation requirements. Support for local faculty positions will have to be provided to ensure success of dispersed or decentralized training programs.

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HCFA postpones start of evaluation & management guidelines

In light of OSMA's and AMA's concerns that there has not been adequate time for education and implementation of the new evaluation and management (e&m) documentation guidelines, the Health Care Financing Administration (HCFA) has given doctors a six-month reprieve by delaying enforcement of the guidelines, i.e., until July 1, 1998.

The OSMA, as well as several other states, introduced e&m-related resolutions at the AMA Interim Meeting in December. OSMA's resolutions resolved that: (1) the AMA should go on record to help relieve their physician members from the added paperwork that will detract from patient care because of the time required in documentation; (2) the AMA should distance itself from participation in the formulation of HCFA guidelines, unless substantial physician input is utilized; (3) the AMA House of Delegates instruct the Board of Trustees to use every means possible up to and including court

injunctions to halt the implementation and enforcement of said changes in e&m services; and (4) the AMA conduct an all-out campaign to inform and educate physicians of the impact of said changes before the enforcement date.

Reference Committee H, which heard testimony regarding the resolutions and concerns over the e&m guidelines, submitted a substitute resolution and reported that the committee agreed with the sentiments of many of those testifying and indicated that both physician education and guideline review should be high priorities during the new "grace period" and beyond.

Physicians should be aware that the decision to extend the deadline does not obviate the administration's requirements that (a) the level of e&m services billed must be medically necessary and documented accordingly in patients' medical records and (b) the e&m services must, at a minimum, meet the documen-

tation guidelines developed by HCFA and the AMA in 1994. Bruce Fried, director of the Center for Health Plans and Providers, noted that "While we accept the use of the 1994 guidelines, we strongly encourage physicians to begin using the new guidelines as soon as possible so that they will have become familiar with them when they become the only standard in July."

Physicians who have not yet received the revised e&m guidelines may obtain them through several channels:

- The HCFA website: <http://www.hcfa.gov>.
- The AMA Bulletin Board Service (BBS)
- The OSMA by calling 405-843-9571 or 800-522-9452

These new guidelines affect most medical practices and the six-month grace period granted by HCFA provides an opportunity for physicians to become more knowledgeable about the changes before the July 1 enforcement date. g

Delegation of 15 represents state MDs at AMA Interim Meeting

The American Medical Association House of Delegates convened in December for its 1997 Interim Meeting. The 475 physician-members of the House of Delegates met daily from Sunday, December 7, through Wednesday, December 10, to discuss and vote on a wide range of policy resolutions to guide the 150-year-old association. More than 150 resolutions and 70 reports were considered.

The Oklahoma Delegation, consisting of 15 delegates and alternates, including David M. Selby, MD, president, submitted ten resolutions to be presented before the House. Below is a listing of those resolutions and the actions taken:

- Evaluation and Management: Help for Members
(*Adopted as Amended*)

- Evaluation and Management: Halting Implementation and Enforcement (*Adopted as Amended*)
- CME Category 2 (*Not Adopted*)
- Professional Courtesy (*Adopted as Amended*)
- Managed Medicaid (*Adopted as Amended*)
- Universal Access to Medical Care (*Adopted as Amended - policy reaffirmed*)
- Fraud and Abuse (*Adopted as Amended*)
- "Without Cause" Discharge Provisions (*Policy Reaffirmed*)
- Practice Expense (*Adopted - policy reaffirmed*)
- Medical Necessity Coding (*Adopted as Amended*)

In addition to the House's deliberation and action on resolutions, special presentations and reports were made on several

OSMA's McCaffree one of seven MDs to review Sunbeam deal

In the aftermath of last summer's highly publicized "Sunbeam deal," the American Medical Association has, to date, (1) named seven physicians to conduct an independent review of the entire venture, which includes OSMA's President-Elect Mary Anne McCaffree, MD; (2) conducted an immediate investigation into the details surrounding the deal. This yielded a ban on the endorsement of consumer products (excepting AMA books published by Random House) until clear policies on such ventures are established; and (3) accepted the resignations of four top executives, including the association's EVP, and announced that Chief Operating Officer Lynn Jensen, PhD, will serve as Interim EVP while the AMA Board conducts a nationwide search.

The Sunbeam endorsement deal ranked high on the list of hot topics at the AMA Interim Meeting in Dallas. It involved the exclusive use of the AMA's trademark on Sunbeam products and consumer health product inserts in exchange for royalties. Following negative publicity, the AMA quickly and openly acknowledged that the move had been a mistake and sought to change the contract's terms, prompting Sunbeam to file a \$20 million lawsuit.

Conceding that the transaction has compromised the AMA, Reed Tuckson, MD, new group vice-president for professional standards, has vowed to restore trust in the organization. "We will do whatever we need to do to regain credibility," he said. □

Genetic Discrimination Task Force has meeting

Members of the Task Force to Prevent Genetic Discrimination recently decided to proceed slowly regarding state legislation preventing such discrimination.

Task Force chair Rep. Betty Boyd, D-Tulsa, said she "would like to pursue [anti-discrimination legislation] in a very gradual small-step form."

Boyd introduced a bill three years ago that prohibited discrimination based on genetic information, but said she withdrew the bill after it passed the House because she and her colleagues realized they didn't have enough information on all the implications of such legislation.

The task force was set up to look further into the issue, which is what it has been doing for the past 18 months, Boyd said.

Some members said they'd like to wait and see what the federal government comes up with, but others suggested that some basic protections, at least regarding health insurance, should be put in place.

Members agreed that legislative staff should draft a bill with such limited protection.

A fear of genetic discrimination, whether real or perceived, is hindering research in some instances, Boyd said. That's why she originally introduced legislation, because some researchers were complaining that no one would participate in genetic research because they were afraid their test results would be made available to insurance compa-

nies or employers, and they would lose benefits or even their job.

Several states have implemented legislation prohibiting discrimination based on this genetic information. Wisconsin, in 1991, was the first state to adopt related legislation. Several others followed suit in each year following. In 1997 alone, 11 states, including Texas, adopted laws prohibiting genetic discrimination.

The state laws, according to a speaker at a previous meeting, are drafted around four general principles, which prohibit health insurers from:

- Using genetic information, or the request for genetic services, to deny or limit coverage or establish eligibility, continuation, enrollment or contribution requirements;
- Using genetic information, or the request for genetic services, to establish differential rates or premium payments;
- Requesting or requiring collection or disclosure of genetic information; or
- Releasing genetic information without prior written authorization.

There are actually 17 states that have legislation or pending legislation regarding genetic information protection according to staff.

OSMA lobbyists were in attendance at the Task Force meeting. The OSMA Council on State Legislation and Regulation will consider the proposed legislation at its next meeting. □

AMA Interim Meeting (continued)

new initiatives the AMA has launched on behalf of America's patients and physicians. Among them: National Patient Safety Foundation at the AMA; American Medical Accreditation Program (AMAP); AMA Division of Representation; and AMA World Wide Web site.

The AMA program received the continued go ahead from the House of Delegates, on the condition that AMAP leaders work to improve communication and collaboration with state, county, and specialty medical societies. The recommendation also called for AMAP to "fully and completely review all current efforts" and to smooth its interactions with the federation. Gary Krieger, MD, vice-chair of AMAP's governing body, offered delegates an apology for the program's missteps. "We have heard this house loud and clear," he said. For detailed information or copies of Reference Committee reports please contact Barbara Matthews at the OSMA. □

OFFICIAL CALL

The House of Delegates of the Oklahoma State Medical Association

**will conduct its
92nd Annual Meeting**

**at the
Marriott Hotel
Oklahoma City**

April 23-26, 1998



**Opening Session: 8:30 a.m. Friday, April 24
Closing Session: 9 a.m. Sunday, April 26**

All members, delegates, alternate delegates, and county society officers are encouraged and urged to attend. • Business to be brought before the House of Delegates must be submitted by March 23, 1998. • All items of business will be debated in open reference committee hearings on Friday, April 24, 1998. • Any member of the association may submit business for consideration by the House of Delegates. • For help in preparing information for submission, please contact

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AMA's new Section for International Medical Graduates up and running

The American Medical Association's (AMA) House of Delegates first approved the creation of a Section for International Medical Graduates (IMGs) in December 1996. In June 1997, the AMA appointed the first Governing Council of the IMG Section. And in December 1997, in Dallas, the first formal meeting of the IMG section of the AMA became an official part of AMA's Interim Meeting.

There are estimated 150,000 IMGs in this country (approximately 23% of the total number of physicians). The IMGs have made and continue to make significant contributions to the field of medicine in general and to U.S. healthcare in particular.

The purpose of creating the IMG section of AMA was to promote better understanding of IMG issues in the broader physician community, to provide full participation of IMGs in organized medicine and in the U.S. healthcare system, and to help curtail efforts to minimize IMG practice opportunities. The section will also provide outreach and two-way communication between individual IMGs and the AMA through the IMG Section. The IMG Section will have a representative in the AMA House of Delegates. The section also is expected to increase AMA membership among the IMGs who are not AMA members. The increased membership in the AMA and in the IMG Section will give IMGs greater visibility and help protect them from unfairness.



Call for Resolutions

All resolutions to be presented to the Oklahoma State Medical Association House of Delegates Annual Meeting must be received in the OSMA executive offices not later than thirty (30) days prior to the meeting. This year's meeting will be April 23-26, 1998, at the Marriott Hotel in Oklahoma City. County medical societies or individuals wishing to submit resolutions should mail them to OSMA, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118. If you need assistance in drafting such resolutions, please contact the OSMA executive offices.

Resolutions must be submitted on or before March 23, 1998

The first Governing Council of the IMG Section of the AMA was appointed by the AMA Board of Trustees. (All subsequent Governing Council members will be elected each year). The first Governing Council of the IMG Section consisted of Busharat Ahmad, MD (Mich., Chair); Asha Wallace, MD (Mass.); Tino Amares, MD (W.V.); Rene Rodriguez, MD (Washington D.C.); Vin Sawhney, MD (Calif.); Mark Friedlander, MD (Pa.) and Neopito Robles, MD (Ariz.). They issued the following Mission Statement:

- Increasing the impact of IMG viewpoints in organized medicine.
- Acting decisively to promote IMG participation and visibility at all levels of organized medicine.
- Coordinating two-way communication between grassroots IMGs and organized medicine.
- Directly representing the views of the IMGs in the AMA House of Delegates

Membership in the IMG section is voluntary, but all IMGs are encouraged to become members. The process of becoming a member is simple and it is *free*. A simple half-page form (which can be obtained from the OSMA or AMA office) needs to be filled out and sent to the AMA by mail or fax.

The first IMG section meeting in Dallas was very well organized and very successful. The meeting adopted the by-laws, rules, and regulations, as well as approved several resolutions for consideration by the AMA House of Delegates. The IMG section has asked the Governing Council to direct their efforts in areas of (1) Advocacy (in AMA and in Washington), (2) Licensure (to promote fairness and to simplify the process of reciprocity and credentialing), (3) Discrimination (in residency training programs, selection/de-selection by managed care organizations and hospital privileges), and (4) Educational Programs.

The IMG section elected the first nominating committee and charged them with the responsibility of nominating the members of the Governing Council and conducting the election (by mail ballot). Nominations will be invited from the IMG Council/Committee of each state and from various national ethnic IMG organizations. The five members of this nominating committee are: Busharat Ahmad, MD (Mich.); Kautilya Mehta, MD (Okla.); Reynaldo Lee Llacer, MD (Md.); Kalpalata Guntupalli, MD (Tex.); and Venkatachala Pathy, MD.

The creation of the IMG Section by the AMA has been the result of many years of sincere efforts by many prominent IMGs and several ethnic IMG organizations. It clearly represents recognition by the AMA of this large, special, diverse group with several important issues that affect IMGs. It also represents the AMA House of Delegates' and Board of Trustees' sincere intentions to support the IMGs, help them to resolve their issues, and help bring them closer to the mainstream of organized medicine. □

Oklahoma State Immunization Information System provides statewide database

The Oklahoma State Immunization Information System (OSIIS) has been created to provide an electronic statewide, on-line database. OSIIS was implemented in June 1995 with Centers for Disease Control (CDC) federal grant funds. Providers have access to immunization records for children to determine a child's immunization status and specific vaccines due. Currently over 5 million immunizations are in the database with over 330 public clinics and private physicians accessing OSIIS.



OSIIS generates reminder postcards for children in the database that are past due for immunizations. The Oklahoma State Department of Health (OSDH) sends reminder cards to parents when the child is ready to receive additional immunizations. The postcards refer the parents to their provider where the child received their last immunization. There are 560,990 children 0-18 years of age in the database.

Monthly vaccine accountability usage reports are generated for each provider. No written reporting or calculations are required by providers. Vaccine usage and inventory for all vaccine kept in stock is tracked and can include vaccine purchased privately.

OSIIS can be accessed by modem using a computer and communications software or by internet access. No additional software is required besides the communication software (i.e.,

ProComm). Access by using one of the 64 "1-800" telephone lines makes use of OSIIS free to the provider. All users are assigned a security access code for confidentiality. Student field engineers come to the sites to set up and train staff. The training takes a few hours and is usually scheduled for days the clinic does not see patients.

All existing VFC providers who are not currently using OSIIS by March, 1998, will be required to come online in order to continue receiving VFC vaccine. After that date, the only method available to order vaccine will be electronically through OSIIS. Only emergency orders will be accepted by mail or telephone. If your clinic or office is unable to access OSIIS because of problems interfacing with your current system or because you lack a computer, please call us to formulate a plan to address the problem.

The OSDH obtains birth certificate information on children each month and the basic information is added to OSIIS. All new births have been added to the database since January, 1996. When a child does not receive their immunizations on time, a reminder card is sent to their family.

To schedule an appointment, or if you have any questions about OSIIS, please call Edd Rhoades, MD, Chief, Maternal and Child Health Service, at 405-271-4477 or Phyllis Brown, RN, Immunization Division at 405-271-4073 or the OSIIS office at 405-271-7200. J

Confidentiality Statement for OSIIS

In this era of electronic databases, questions surface regarding patient confidentiality statements and release of information policies. The Oklahoma State Department of Health has developed the following policy regarding confidentiality of immunization records and the Oklahoma State Immunization Information System (OSIIS).

Confidentiality of Oklahoma's State Immunization Information System

"All patient records in OSIIS are confidential as required by federal and state law and rules, and by professional ethics. It is the responsibility of each employee of any medical provider who enters records in OSIIS to maintain complete and total confidentiality of patient/

client information collected for and stored by OSIIS.

"Each and every person, professional and non-professional, who obtains information from a patient receiving immunizations is engaged in a privileged communication in that the employee is functioning as an agent of a physician.

"Each facility that records immunizations in OSIIS is assigned a log-in identification and a password. In order for another facility to access a particular patient's record, they must have sufficient identifying information to retrieve the record, i.e., name, date of birth, address or city of residence, or mother's maiden name.

"Oklahoma's County Health Departments obtain a Consent for Release of Confidential Information, ODH Form #206, for immunizations which indicates that information as to the status of the child's immunizations may be released to schools or day care centers or homes in which the child is enrolled, other health

care professionals in need of the information, and court appointed guardians or court appointed special advocates, such as the Department of Human Services, if appropriate. The date this form is signed by the patient, parent or guardian of a minor, or by the person consenting to immunization of a minor, is recorded in OSIIS as the "Date of Release." All other facilities recording immunizations in OSIIS should obtain consent for release of information in accordance with their policies.

"Release of immunization records administered by Oklahoma's County Health Departments to other persons or agencies other than those named above, shall be by written release by the patient, by parent or guardian of a minor, by the person consenting to immunization of a minor, or by court order.

"In 1982, the Oklahoma legislature gave non-custodial parents the right of access to their minor child's medical records (10 O.S., 5.2) if the custodial

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HEALTH DEPARTMENT (CONTINUED)

parent has access. Therefore, the medical records of a minor shall be released to either parent until the physician or county health department is ordered not to by a court. If a court order is issued restricting a parent from the minor's medical record, a certified, file-stamped copy of the court order compelling the restriction should be obtained for the medical record."

As of January 1, 1998, 173 private physician clinics and hospitals are utilizing OSIIS. A total of 170 public health and community based clinics are online, bringing the total number of clinics using the statewide database to 343. Immunizations received in the Tribal and Indian Health Clinic networks are now uploaded in OSIIS on a biweekly basis. To learn more about OSIIS, and how your clinic can benefit using this statewide registry, please contact Edd Rhoades, MD, Chief, Maternal and Child Health Service at 405-271-4477, or Phyllis Brown, RN, Director of the Immunization Division at 405-271-4073.

Children First for first-time mothers

Children First is a state-funded nurse home visitation prevention program implemented by the Oklahoma State Department of Health in 1997. Children First targets first-time mothers. The program connects mothers with health education that incorporates mental health and community health principles. Approximately 135 registered nurses will be hired as public health nurse home visitors over the next nine months to provide services statewide.

Home-visitation services have been promoted as a means of improving maternal and child health and functioning. David L. Olds, PhD, University of Colorado Health Sciences Center, Denver, Colorado, conducted a fifteen-year follow-up on a randomized trial which explored the long-term effects of nurse home-visitation.¹ The study setting was a semirural community in Elmira, New York. He concluded that "prenatal and early childhood home visitation by nurses can reduce the number of subsequent pregnancies, the use of welfare, child abuse and neglect, and criminal behavior on the part of low-income, unmarried mothers for up to 15 years after the birth of the first child."

Similarly, a randomized, controlled trial was conducted in a public health system of obstetric care in Memphis, Tennessee. The study concluded that "this program of nurse home-visitation can reduce pregnancy-induced hypertension, childhood injuries, and subsequent pregnancies among low-income women with no previous live births."

Home visitation programs are not new to Oklahoma. Neither is home visiting new to the public health system. A long history of home visitation in Oklahoma precedes the Children First program that is based on the nurse home visitation intervention model developed by Dr. Olds. The Children First program has both similarities and differences from other home-visitation programs in Oklahoma.

(continued)

OSDH reminds physicians of Oklahoma's Newborn Hearing Screening Program

Through a 1982 legislative mandate, Oklahoma became the fifth state to establish a risk register hearing screening program. Presently, more than 96% of the infants born in Oklahoma are screened with the Oklahoma State Department of Health (OSDH) Newborn Hearing Screening Program's (NHSP) hospital questionnaire (Fig. 1). While Oklahoma's present program has been successful in identifying infants with hearing loss at an early age, national studies suggest that risk registers miss approximately 50% of the children who ultimately have significant congenital hearing loss. In 1995, the NHSP assisted in identifying 70 Oklahoma infants with hearing loss. Research shows that minimally three infants per 1000 live births have significant hearing loss. Using this rate,

the expected number of infants born in this state in 1995 with a loss is 136.

Following the National Institutes of Health (NIH) Consensus Statement in March 1993, recommendation that *all* newborns be screened for hearing impairment prior to hospital discharge, the impetus for universal newborn hearing screening (UNHS) has grown rapidly. The Joint Committee on Infant Hearing 1994 Position Statement strongly endorsed the goal of universal detection of infants with hearing loss. More recently, support for UNHS has been expressed by the American Academy of Pediatrics, the American Speech-Language-Hearing Association, the American Academy of Au-

(continued on next page)

Children First (continued)

Several critical components of the Children First program distinguish it as a home visitation program that can produce positive outcomes for Oklahoma mothers and their children.² First is the continuous, consultative role that Dr. Olds plays as statewide implementation begins. Although flexibility is a part of the Oklahoma initiative, his continuing involvement prevents deviation from the underpinnings that have made the program successful in previous trial sites. Nurses are carefully selected, many of whom are experienced public health nurses who bring additional skills to the initiative. Further, there is a distinct awareness of the importance of adequate training of Children First nurses to achieve the goals of the intervention. Finally, a strong evaluation component to measure Oklahoma maternal and child outcomes is central to the Children First program.

The program targets maternal and child health problems that emerge early in the life cycle and that may be prevented with improvements in maternal health habits, parental behaviors, and the psychosocial and environmental contexts in which the family is functioning. Problems addressed on the part of the child include prematurity and low birthweight, growth and nutritional problems, accidents and ingestions, developmental delays, behavioral problems, and child abuse and neglect.

The overarching premise of the program is that these child health problems will be improved to the extent that nurse home visitors are successful in improving women's health-related behaviors during pregnancy (such as smoking, alcohol and drug abuse, inadequate diet, weight gain, and use of prenatal care), quality of infant care-giving, informal social support, and use of the health and human services. An additional goal is aimed at improving the life-course development of parents (primarily mothers) relative to the planning of subsequent pregnancies, educational achievement and participation in the work force.

To accomplish these goals, the program synthesizes health education, mental health and community health nursing approaches in addressing: (a) the needs of women and other

family members for information about how to better cope with the pregnancy, birth and early care of the child; (b) women's needs for personal affirmation in the context of caring and supportive relationships; and (c) utilization of formal services by families to meet their needs for health services, food, shelter, and a means of earning a living. Given the emphasis on prevention rather than treatment of existing problems, the focus is on serving women who are having their first child. The skills and resources these mothers develop in coping with their pregnancy and child set a pattern for their parenting of subsequent children. Also, it will normally be easier for women to return to school and work if they have only one child.

During home visits, nurses carry out three major activities: (a) educating parents; (b) helping women build supportive relationships with family members and friends; and (c) linking family members with other health and human services. In carrying out these activities, emphasis is placed on the importance of building on the strengths of parents and of promoting parental competence and control over their life circumstances.

As soon as the Children First Program is implemented in individual counties across Oklahoma, physicians seeing first time mothers are encouraged to contact their county health department as early in the mother's pregnancy as possible to arrange for referral. As implementation of Children First begins, Oklahoma and the nation's eye is turned toward the outcome of this research-based intervention. Please contact Edd D. Rhoades, MD, Chief, or Annette Wisk Jacobi, JD, Children First Program Coordinator, Maternal and Child Health Service, Oklahoma State Department of Health at 405-271-4477 for further information.

References

1. Olds DL, Eckenrode J, Hendersen CR, Kitzman H, Powers J, et al. Long-term effects of home visitation on maternal life course and child abuse and neglect: fifteen year follow-up of a randomized trial. *JAMA*. 1997;278(8):637-643.
2. Olds DL, Eckenrode J, Hendersen CR, Kitzman H, Powers J, et al. Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: a randomized controlled trial. *JAMA*. 1997;278(8):644-652.
3. Olds DL. *Program Manual, Pregnancy and Early Childhood Nurse Home Visitation Program*. Denver, Colorado: University of Colorado Board of Regents; 1997.

Newborn Hearing Screening *(continued)*

diology, the American Academy of Otolaryngology, and in the *Healthy People 2000* report. Presently, five states (Hawaii, Mississippi, New Mexico, Rhode Island, and Wyoming) are screening all newborns; six other states are screening 70% to 80% of the live births.

Current technology, such as automated auditory brainstem response (ABR) screening and otoacoustic emission (OAE) screening, quickly and efficiently identifies infants with hearing loss. True costs to screen newborns using the above methods is low (averages \$25 per baby). By identifying the one of every 1000 infants born deaf and the five to seven with mild to moderate hearing loss, amplification can be fitted and intervention can commence at the earliest opportunity. Research currently is being conducted at the University of Colorado with two groups of children with hearing loss. The first group had the loss identified prior to six months of age with ensuing enrollment in intervention; the second group had the loss identified after six months of age with ensuing enrollment in intervention. The children whose hearing losses were identified by six months of age exhibit expressive and receptive language developmental quotients significantly higher than

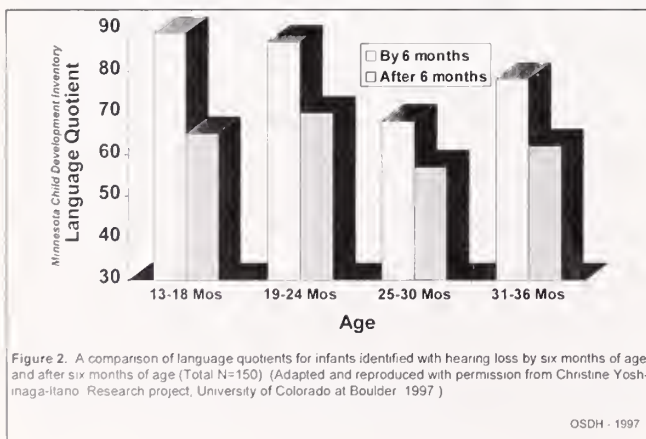
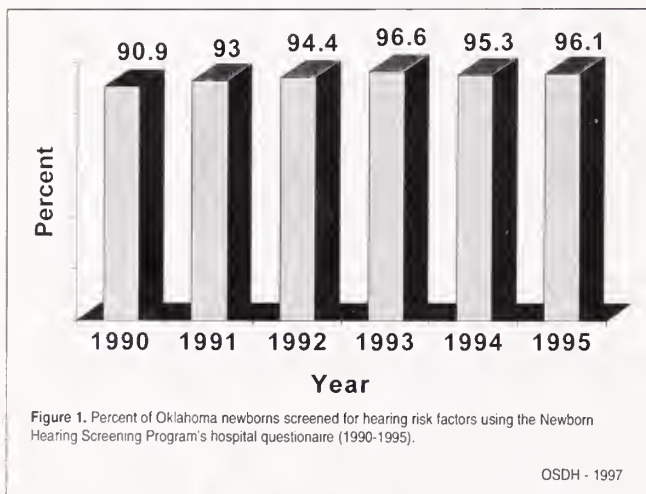
those whose losses were identified after six months of age (Fig. 2). These findings support identification of hearing loss by six months of age with enrollment in appropriate intervention as a most effective strategy for the normal development of language in deaf and hard of hearing infants and toddlers. Identification of hearing loss by six months can be accomplished only with UNHS.

In an effort to establish UNHS in Oklahoma, the NHSP is participating with 18 other states in a Maternal and Child Health federal grant project through the Marion Downs Center for Infant Hearing, University of Colorado, Boulder. The project, which began in late 1996, assists states in achieving universal screening by 2000. The first step of the project was to collect data about current hearing screening practice and follow-up services available for infants suffering hearing loss. Results of the survey show that only two of Oklahoma's birthing sites have implemented UNHS, eight hospitals provide physiologic screening for most NICU infants prior to discharge, and several institutions are attempting to screen all infants deemed "at risk" by the present hospital questionnaire. The study says less than two percent of the infants born in Oklahoma are screened with physiologic methods prior to discharge and that initial diagnosis of hearing loss for infants typically is at greater than nine months. More positive findings reveal that early intervention services for hearing impaired infants are available statewide and that many audiologists and pediatricians strongly support UNHS.

A state plan for UNHS was developed in June 1997 by the NHSP with assistance from the Marion Downs Center. The goals for this plan and the federal Title V MCH Block Grant include the establishment of universal screening (85% of births) by 2000, appropriate diagnostic and intervention services provided to infants with hearing loss by the time they are six months of age, and an expanded database to track infants and evaluate program effectiveness.

Steps are being taken to assist in accomplishing these goals. A collaborative agreement with the Children with Special Health Care Needs program at the Department of Human Services has been established to purchase hearing screening equipment. Approximately 45 screening devices (ABR and OAE) were received in late 1997. To assist hospitals in developing UNHS, the NHSP will lend this equipment to hospitals, provide them with screening protocols, assist in training hospital personnel/volunteers in hearing screening techniques, and provide technical assistance to these institutions. The NHSP hospital questionnaire has been modified to let hospital-obtained hearing screening results be recorded on the form. The present NHSP database is being expanded so that data indicating the percent of infants screened, the number identified with a loss, the age of identification and the age intervention commences is readily available.

As Oklahoma moves toward implementing universal newborn hearing screening, steps need to be taken to ensure that this goal is accomplished. Present legislation (O.S. 63, § 1-543 through § 1-545) mandates that screening for hearing loss is required for all infants and current State Board of Health guidelines require the use of the hospital questionnaire.



OSDH explains Newborn Metabolic Disorder Screening rule revisions

Public Law 63 O.S. 1981, Sections 1-533 and 1-534, provides that every infant born in Oklahoma must be screened for congenital hypothyroidism, galactosemia, phenylketonuria (PKU), and sickle cell disease. The Newborn Metabolic Disorder Screening Rules and Regulations that define screening practices in Oklahoma, as defined by law, have been revised by the Oklahoma Board of Health to clarify follow-up responsibilities, referral recommendations, and screening guidelines for newborns and premature/sick infants.

Specimen Collection

A newborn metabolic disorder screening specimen must be collected on all newborns prior to transfusion, at three to five days of age or immediately prior to discharge, whichever comes first. If a specimen is collected prior to 24 hours of age, the hospital and the physician are responsible for notifying the infant's parents that a repeat specimen is necessary at three to five days of age. The infant's physician is responsible for ensuring that the repeat specimen is collected.

For premature/sick infants, a newborn metabolic disorder screening specimen must be collected prior to red blood cell transfusion, at three to seven days of age or immediately prior to discharge, whichever comes first. It is recommended that a repeat newborn metabolic disorder screening specimen be collected at 14 days of age. Premature/sick infants screened prior to 24 hours of age must be re-screened between 7-14 days of age. Premature/sick infants who could not be screened prior to a red blood cell transfusion should be re-screened by the 7th day of life and a repeat specimen collected when plasma and/or red cells will again reflect the infant's own metabolic processes or phenotype. The accepted time period to determine hemoglobin type is 90 to 120 days after transfusion. The recommended follow-up study for an abnormal thyroid screen in a premature infant is a serum free T4 (measured by direct dialysis or an equivalent method) at 7 to 4 days of age.

Follow-up for Physicians

If a physician examines a child in the first three months of life, the physician will verify that the child has been screened. If the child has not been screened or if results of screening are not available, the physician should submit a newborn

metabolic disorder screening specimen within 48 hours if possible.

Referral

For appropriate comprehensive medical care, all confirmed cases of congenital hypothyroidism, galactosemia, phenylketonuria, and sickle cell disease should have a consult or referral to a pediatric sub-specialist. For referral information, please contact the NMDSP Follow-up Program at (405) 271-6617 or 1-800-766-2223, ext. 6617.

Definitions Specific to the Rule Changes

Pediatric Sub-Specialist means a physician licensed in Oklahoma, board certified in pediatrics and board certified in a pediatric sub-specialty of pediatric endocrinology or pediatric hematology; or a physician licensed in Oklahoma, board certified in pediatrics whose primary area of practice is pediatric endocrinology, pediatric hematology or metabolic specialist.

Premature Infant means an infant weighing less than 2500 grams or any live birth before the thirty-seventh week of gestation.

Sick Infant means an infant with any condition or episode marked by pronounced deviation from the normal healthy state; illness.

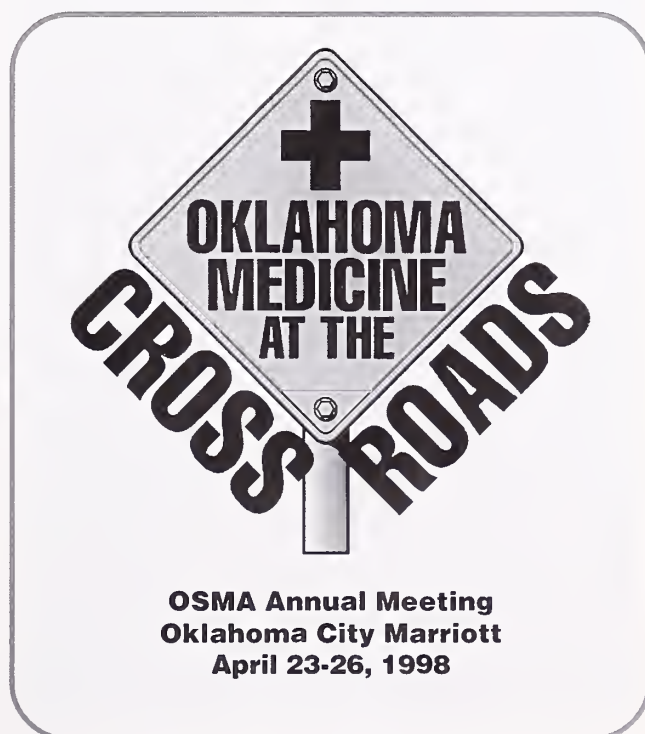
For more information, please contact Pam King, RN, Coordinator, Newborn Metabolic Disorder Screening Program, Maternal and Child Health Service at 405-271-6617 or 1-800-766-2223, ext. 6617.

□

Newborn Hearing Screening *(continued)*

Modification of present guidelines and/or new legislation to support the concept of UNHS may be appropriate methods of attaining the goal. An advisory group to assist the NHSP in establishing UNHS is being formed. Questions regarding Oklahoma's newborn hearing screening program may be directed to Edd D. Rhoades, MD, Chief, or James G. Schmaelzle, MCD, Coordinator, Newborn Hearing Screening Program, Maternal and Child Health Service, Oklahoma State Department of Health at 405-271-4477.

□



DEATHS

Marcus Lafayette Cox, MD 1921 - 1997

Oklahoma City general practitioner Marcus L. Cox, MD, died November 11, 1997. Dr. Cox, a 1952 graduate of the Medical College of Georgia, Augusta, was born in Omega, Georgia. He had previously earned a master's degree in pharmacy. Dr. Cox completed an internship at St. Anthony Hospital in Oklahoma City before establishing a practice in Okemah, Okla. He was a pharmacy instructor at the University of Oklahoma and a professor of pharmacology at the St. Anthony School of Nursing. In late 1953 he moved his general practice to Oklahoma City. During World War II, Dr. Cox served in the U.S. Army as an administrative assistant.

Curtis Bert Cunningham, MD 1905 - 1997

Curtis B. Cunningham, MD, retired Clinton general practitioner, died in Oklahoma City November 16, 1997. A Life Member of the OSMA, he was graduated from the University of Oklahoma Medical School in 1935 and completed a

general internship at Wesley Hospital in Oklahoma City. In 1936 he established a private practice in Custer City, Okla., before moving to Clinton in 1939. In 1977 Dr. Cunningham became the first OU graduate in private practice to receive an Outstanding Achievement Award voted by his peers. At the same time, an annual lectureship in general practice was established in his name. Dr. Cox was very active in the OU Alumni Association and other fund raising efforts. He was a charter member of the Oklahoma College of Medicine Research Foundation, a sustaining member of the Presbyterian Foundation, and chaired the Student Loan Fund committee at the college. He was a life member of the American Academy of Family Physicians.

Dorothy Rose Danna, MD 1920 - 1997

Tulsa psychiatrist Dorothy R. Danna, MD, died November 7, 1997, in Tulsa. A native of Topeka, Dr. Danna was graduated from the University of Kansas School of Medicine in 1951. She completed her internship at Michael Reese Hospital in Chicago and her residency at the Menninger School of Psychiatry in 1955. She practiced in Topeka until her move to Oklahoma in 1964.

John Douglas Hesson, MD 1930 - 1997

A 1960 graduate of the University of Arkansas School of Medicine, Dr. John D. Hesson, died October 18, 1997. He was born in 1930 in Columbus, Ohio. After high school he was in the Air National Guard and was called into active service during the Korean conflict. He served as a medic there, setting up M.A.S.H. units. After returning to the states, he completed his medical degree and did an internship in Winchester, Penn. He then established a medical practice in Rison, Ark. In 1966, Dr. Hesson moved to Drumright, Okla., and continued an active general practice there for the next 31 years. He served as medical examiner from 1966 to 1997 and was made a Fellow of the American College of Abdominal Surgeons in 1969. He was also director of the Chemical Dependency unit at Cushing Regional Hospital for several years.

David Eugene Livingston, MD 1927 - 1997

General surgeon David E. Livingston, MD, a native of Wilburton, Okla., died November 21, 1997. Dr. Livingston was a 1957 graduate of the University of Oklahoma Medical School. Af-

IN MEMORIAM

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John Douglas Hesson, MD	October 18
Dorothy Rose Danna, MD	November 7
Marcus Lafayette Cox, MD	November 11
Curtis Bert Cunningham, MD	November 16
David Eugene Livingston, MD	November 21
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

DEATHS (CONTINUED)

ter his internship he completed a residency in general surgery at St. Anthony Hospital in Oklahoma City and began his practice in that city in 1962. He served in the U.S. Army from October 1946 to March 1948 during the Japanese occupation.



LeRoy Long III, MD **1929 - 1997**

OSMA Life Member LeRoy Long III, MD, died December 21, 1997, in Oklahoma City. Dr. Long was born and raised in Oklahoma City. He earned his medical degree from Harvard Medical School in 1955 and went on to complete an internship in laboratory research and a surgical residency at the University of Illinois Research and Educational Hospitals in Chicago. He served as a captain in the U.S. Air Force before returning to Oklahoma City in 1963 to establish his private surgical practice. Dr. Long had numerous professional affiliations, in addition to which he was a past president of both the Oklahoma Surgical Association and the Oklahoma Chapter of the American College of Surgeons. He was a clinical associate professor of surgery at the University of Oklahoma School of Medicine as well as the former director of the Surgery Training Program at St. Anthony Hospital.



Thomas Jefferson Lowrey, MD **1927 - 1997**

Thomas J. Lowrey, MD, a general practitioner in Yukon, died December 21, 1997. He was born in Slick, Okla., on July 4, 1927, and earned his medical degree from the University of Texas Medical School in 1954. He served his internship at University Hospitals in Oklahoma City and his residency at both University Hospitals and Veterans Administration Hospital. Dr. Lowrey established a private general practice in Yukon in 1957.



David D. McGhee, MD **1936 - 1997**

Tulsa pediatrician David D. McGhee, MD, died December 17, 1997. A native of Kansas City, Mo., Dr. McGhee earned his medical degree in 1963 at the Kansas University School of Medicine. He completed an internship and a pediatrics residency at Hillcrest Medical Center in Tulsa. Dr. McGhee served in the U.S. Army in Fort Campbell, Ky., from September 1966 to July 1968. He returned to Tulsa in 1968 to establish a private practice in pediatrics.



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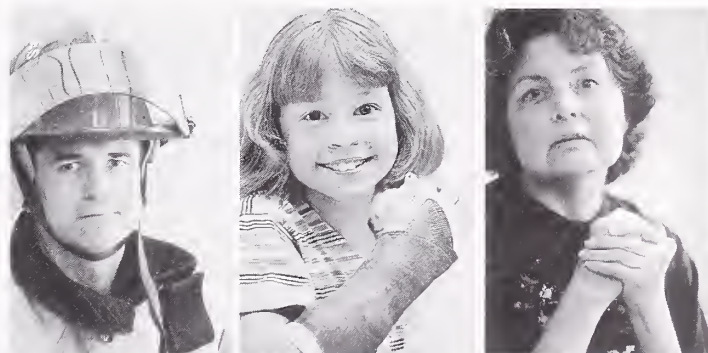
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Announcing the 1998 Mark R. Johnson Competition— Excellence in Medical Writing

The Editorial Board of the JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION and the OSMA Board of Trustees are proud to announce the 1998 Mark R. Johnson Competition—Excellence in Medical Writing.

A \$500 cash award will be presented to the medical student or resident at the University of Oklahoma College of Medicine (Oklahoma City or Tulsa campus) who, by December 31 of this year, submits the best scientific paper or opinion piece for publication in the JOURNAL.

Entries will be judged by the JOURNAL's Editorial Board at its annual meeting in the spring of 1999 and the winner, if any, will be announced at the Annual Meeting of the OSMA House of Delegates in April 1999. Presentation of the award in any given year will be dependent upon the receipt of eligible papers and at the discretion of the Editorial Board. All decisions of the Editorial Board will be final.

The student or resident submitting the paper need not be the sole author, but must be the *lead* author and must have done the majority of the writing. *Entries in the competition should be clearly labeled as such when submitted.*

Entries should be mailed to: Mark R. Johnson Competition, OSMA JOURNAL, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118.

The memorial trust that funds the competition was established by the friends and family of Mark R. Johnson, MD, who, during his two decades as editor-in-chief of the OSMA JOURNAL, exemplified the very best in both expository and opinion writing in the field of medicine.

JOURNAL Editor Pontious advocates use of patient-friendly multimedia

Patient education brochures are handy. But patients may more readily understand health information in computer-based, multimedia form, says J. Michael Pontious, MD, JOURNAL editor and program director of the University of Oklahoma's Family Medicine Program in Enid.

"I am weary after I have given the same patient education speech for the tenth time in a week.... Computers can present a medical topic to patients in a thoughtful, comprehensive manner and never tire," says Dr. Pontious.

The literature backs him up. A study published in the February 1997 *Journal of American Dietetic Association* (1997; 97:146-150) reported that a computer-based system helped patients with hyperlipidemia stick to a diet that lowered their cholesterol. In France, a 30- to 60-minute session with a computer program helped patients with hypertension learn more about their disease than those who received pamphlets, reported *Patient Education and Counseling* (1995; 26: 343-347). And in Aberdeen, Scotland, computer-produced literature helped reduce emergency room visits by severe asthmatics by more than fifty percent, said a study published in the *British Medical Journal* (1994;308:568-571).

Patients who say their physicians discuss health education topics with them are more likely to be satisfied with their doctors, *The Journal of Family Practice* (1996;42:62-68) reported. Nevertheless, many physicians find they don't have the time or the resources to give each patient the information he or she needs and consequently resort to handouts.

"Traditional patient education materials are still useful," Dr. Pontious says, "but I sense we are on the brink of bringing quality interactive multimedia programs into the patient education arena." He suggests physicians develop a lending library of computer-based patient education titles or even establish computer learning centers in their waiting rooms or at a local hospital. As more people buy home computers and view educational CD-ROMs on them, they will

expect to see this type of program at their doctor's office.

"Multimedia programming allows the user to learn in his or her own style," observes Dr. Pontious. "If he learns best by seeing and hearing, the pictures and audio are useful; if he learns better by reading material, then the text portion helps."

In a recent issue of the newsletter *Medical Software Reviews*, Dr. Pontious reviewed ten patient education software packages for home or office use, each costing less than \$75. Those designed for the office were: "The Amputee" (Hoffman + Associates), "Breast Self Examination" (M.E.D.I.A. Inc.), and "Carpal Tunnel Syndrome" (M.E.D.I.A. Inc.).

Home-use programs included "Mayo Clinic Family Health" (IVI Publishing), "Medical HouseCall" (A.D.A.M. Software, Inc.), and "Clubhouse Kids Learn about Asthma" (MindJourney).

Four of the programs could be used either at home or office, Dr. Pontious thinks. They included "The Dynamic Human" (McGraw-Hill, Inc.), "Explorations in Human Biology" (McGraw-Hill), "The Nine Month-Miracle" (A.D.A.M. Software), and "Understanding Breast Cancer" (Integrated Computer Products).

Quality of content and presentation varied, but all the programs could help patients, Dr. Pontious thinks. He found some outdated information on one disk—AIDS statistics from 1993, for example—but he rates the accuracy of most programs very good or superior. The best programs linked sound, video, and text. For example, "Carpal Tunnel Syndrome" illustrated concepts with moving anatomical models or videos of actual patient examinations. "Clubhouse Kids Learn about Asthma," Dr. Pontious reports, "captures the style and feel of the best interactive children's software. It consistently kept my six-year-old son's attention."

Though he looked at state-of-the-art programs, Dr. Pontious sees more sophisticated, user-friendly programs on the horizon. "Now," he says, "the onus is on

clinicians to develop innovative ways to use these programs in practice."

For information on Dr. Pontious' review, contact *Monthly Software Reviews*, 462 Second Street, Brooklyn, NY 11215-2503; phone 718-499-5910; fax 718-768-3260; e-mail <76702.1724 @compuserve.com>; URL <<http://www.healthcarecomputing.com>>. J

WEBWATCH

AS AN ADDENDUM TO THE ADJOINING item about J. Michael Pontious, MD, a member of OSMA's Council of Publications, Communications, and Public Relations, it seems only fitting to note that the webwise physician has his own website at <<http://www.fammed.uokhsc.edu/enid/jmp1.htm>>. The site is chock full of links to Dr. Pontious' favorite websites, most of them medically related and well worth perusing by his web-surfing colleagues.

OSMA members who maintain their own websites or pages, particularly if they have posted a useful set of medically related links, are encouraged to send their URLs to the JOURNAL, c/o Managing Editor Susan Records.

OBVIOUS BUT OFTEN OVERLOOKED is the AMA's website, <<http://www.ama-assn.org>>. It is constantly changing—for the better—to improve its organization and user friendliness. Web surfers who haven't visited the site in recent months or who have previously given up in frustration are encouraged to visit it again.

The AMA is now offering a new service to members—personal expanded web pages. Called AMA Physician Select, the service helps physicians reach their patients 24 hours a day, seven days a week, with up-to-date information about their practices. AMA members receive a free AMA Physician Select expanded web page which includes a variety of personalized practice information. For more information about the expanded web page offer, call the AMA Member Service Center at 800-262-3211.

—sfi

HEALTHCARE...Always on the Front Burner in our Legislatures!

Because healthcare issues always occupy a front seat in the changing policies made by our state and national governments, physicians and Alliance members cannot afford to stand by and watch while others, less informed, make decisions that have the greatest impact on the well-being of all Americans. Remember, Congress and state legislatures exist to represent our views and our interests! Who would believe that by the rules that have been made over the last number of years. But... by developing effective skills to interact with elected leaders, we carry out our responsibilities as leaders in the health care community... as active citizens rather than silent voices. We must not be the silent majority!

Would you ever hire someone to work in your home or business without giving them instructions and your expectations regarding what you want to see done? I don't think so! Therefore, why would we hire our legislators (our taxes pay their salaries) and give them free rein to "do what is best" for us? There are 101 state representatives and 48 state senators each of whom has numerous physician family constituents. It's up to us to make sure that not one legislator is voting on issues without hearing from us. True—we have excellent lobbyists working on our behalf—but that's not enough. Lobbyists don't vote for each legislator... constituents do. We are the constituents!

It's up to each one of us to take the initiative to become involved and informed so that we can send a clear message to our legislators regarding what we want them to do. We have a state legislative council which meets every other week during the legislative session and goes over every bill introduced that remotely affects medicine. Throughout the route of that bill through its respective house, our lobbyists keep us informed. We know when it's critical to interact with our legislators and when physicians or spouses get the message to "act now," I hope we all make those contacts immediately. It can mean the difference between onerous and good or no legislation.

Too often we are uneasy calling our legislators fearing they will ask us questions we don't know. Not to worry... the call that comes to make that contact will have ample information to allow you to answer any questions. And the worst that could happen is that you would have to say, "I'm not sure of that answer but I will find out and get back to you." How hard is that? Of course, you must then find out the answer and call that legislator back, and you can do that by simply calling the OSMA at 405-843-9571 or 800-522-9452 and talking to Judy Lake or one of the lobbyists. Many times when you call to request the legislator vote a certain way, you will simply tell the secretary who will record the "aye" and "nay" votes of constituents who call and you will have no questions to answer.

Get to know those legislators who represent you... one representative and one senator. A great way to accomplish that is through the "Legislative Desserts" programs that are being held in several counties. In Oklahoma County, we've been

doing them for several years, and Tulsa County began last year. This event can be done quite easily regardless how large or how small your county might be, and they are looked at very favorably by the legislator. They are targeted so that the desserts only encompass one or two legislative districts... therefore only three or four legislators will be included and sometimes only two. One physician family will be the host and five to six physician families will co-host the event... with that alone you've built in the success of having at least 12 people there. When the host or hostess contacts the legislators to set up the dates, they are told it will be a small event with only a few of the physician families in that legislative district invited and they also are told it will be an opportunity for communication between the legislator and physicians to be established. There's no reason that everyone in attendance should not visit with the legislators in attendance. Then, the next time you are asked to call that legislator regarding an issue, you can refer back to meeting them at the Legislative Dessert. All physicians and spouses in the specific district will be invited to the dessert and usually there'll be around 30 people in attendance... a great working number. This is geared to be a non-confrontational event but issues should certainly be discussed. The bottom line is... when you are invited to a Legislative Dessert... go! It's the least you can do and it's a beginning point to interacting with your legislators. For greater details about this project, just contact me for the complete packet, or ask your Alliance county legislative chair as I will be sending each one of them a packet. Better yet, ask your legislative chair to set up some of the desserts in your own county.

Every year there are approximately 10,000 pieces of legislation introduced into Congress and approximately one-third center around health care. Last year during our state legislative session, we were following approximately 200 pieces of legislation dealing with healthcare. Those numbers alone require that all of medicine become involved. The AMA's Grassroots Hotline (800-833-6354) provides the most current information on legislative activities with day-to-day updates on legislative issues in which the AMA is actively engaged. Calling the hotline is the single best way to keep current on legislative issues. The AMA's Grassroots World Wide Web home page contains the latest Call to Action and talking points on current legislative issues, as well as links to other political and legislative home pages. Take advantage of these easy tools to knowledge and know that knowledge *is* power.

We need to take control of the power to that all-important front burner of legislation. We must work together to ensure that the legislative response in this healthcare revolution achieves the preeminent goal of quality healthcare without further sacrificing the practice of medicine. Your involvement is *key* to that achievement.

—Sherry S. Strebel
OSMA Alliance Legislative Chair

THE LAST WORD

■ **OSMA President David M. Selby, MD, and Legislative Council Chair Edward N. Brandt, Jr., MD,** recently announced the reorganization of OSMA's legislative team. OSMA has contracted with Ms. Tracy Vargas to serve as an assistant to lobbyist Lynne White. Kathleen A. Musson, OSMA associate director, has been designated Director of Political Affairs and will work on legislative grassroots efforts at both the local and federal level to improve physician contact with legislators. Judy Lake, legislative assistant for OMPAC, also will assist the legislative team by serving as staff liaison for the Council on State Legislation and the Council on Governmental Activities, chaired by Richard J. Boatsman, MD. Members may contact anyone on the OSMA legislative team by calling OSMA headquarters, 405-843-9571 or 800-522-9452.

■ **The Oklahoma Supreme Court has denied a motion** for a stay filed by the Board of Examiners in Optometry. District Judge Eugene Mathew's original court order, which prohibits optometrists from performing laser ophthalmic surgery, remains in effect while the defendant optometry board's appeal is pursued. The appeal will likely take a year or more.

The Supreme Court unanimously refused to lift the ban.

■ **Due to the success of two half-day seminars which were** offered by the OSMA in November 1997 on basic coding and evaluation and management (e&m) coding and documentation, OSMA is again offering a similar program. *Advanced Coding for Physicians Services and Evaluation & Management Coding and Documentation* seminars are being presented this month in Woodward, February 4; McAlester, February 11; Tulsa, February 18; and Oklahoma City, February 25, 1998. A brochure regarding these seminars has been mailed to all OSMA members. For additional information or to receive a brochure, contact Toni Farrar at OSMA headquarters, 405-843-9571 or 800-522-9452.

■ **The 1998 National Leadership Conference will be held** in Washington D.C., March 7-10, 1998. The conference is designed to promote the interaction of the leaders of medicine with the leaders of government and business. Speakers for the conference will include: General Colin Powell, Speaker of the House Newt Gingrich, Senator Ted Kennedy, Senator Phil Gramm, Associate Supreme Court Justice Antonin Scalia, and HICFA Administrator, Nancy-Ann Min DeParle. Contact the AMA Registration Hotline at 1-800-262-3211 to register.

■ **Volunteers are still needed to fill remaining days in the** Doctor of the Day program at the State Capitol. Days remaining are in April and May. Tulsa County physicians have filled the positions for the month of February and the Osteopathic Association has filled the month of March. Oklahoma County physicians have filled most of April and the state's rural physicians are being encouraged to fill the days remaining in May.

The Doctor of the Day is assisted by a Nurse of the Day

and expect to see up to 15 patients. Hours at the aid station are from 9 a.m. to approximately 4:30 p.m., Monday through Thursday. Each Doctor of the Day will be introduced in the House and Senate by his or her State Representative and Senator.

The program is important in adding an additional medical presence at the capitol and it gives volunteers an opportunity for an up-close look at state politics in action. Physicians serving as Doctor of the Day will be briefed on issues they may possibly be discussing with their legislators.

Volunteers are needed for the following days:

April 13, 20, 27 (Mondays), 21, 28 (Tuesdays), 29 (Wednesday), and 30 (Thursday).

May 4, 25 (Mondays), 26 (Tuesday), 27 (Wednesday), 22, and 29 (Fridays).

For additional information or to volunteer for the program, call Judy Lake at OSMA headquarters 1-800-522-9452 or 405-843-9571.

■ **Timothy A. Walker, MD, Oklahoma City, was recently** appointed by OSMA President David M. Selby, MD, to replace Dr. M. Dewayne Andrews as chair of the OSMA Council on Publications, Communications and Public Relations. Dr. Andrews tendered his resignation in the face of pressing personal obligations.

■ **The OSMA Hassle Factor Log has been reprinted again** this month and appears on page 34. The log has been developed to assist physicians in documenting issues with various third party entities (insurance, Medicare, Medicaid, etc.) in relation to their practices. This log is a modification of a similar one used in Texas. The OSMA will collect information, identify patterns of issues, and develop strategies to respond to these issues. Patient identification is *not* requested. Please photocopy the log and use it as needed for reporting purposes. Documentation by physicians will assist the OSMA in identifying the issues.

■ **The 1998 OSMA Directory of Physicians is off the press** and on its way to members across the state. Additional copies may be ordered for \$25 each using the order form in the directory. Non-members may order copies at \$50 each (\$25 each in bulk orders of ten or more) from the OSMA, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118.

A useful reference year round, the directory contains physicians names; addresses; phone, fax, and e-mail numbers; medical school and year of graduation; specialties; foreign languages spoken; hospitals across the state; a complete OSMA Bluebook of officers, delegates, councils, and committees, etc., as well as the OSMA Constitution and Bylaws; and listings of national medical specialty societies and state medical associations. Physicians are listed both alphabetically and by city, with both sections tabbed for easy reference. □



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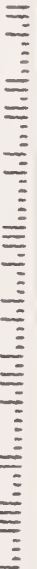


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Time for Intensity

Every year our Oklahoma legislators introduce several hundred bills that—if passed—would have a significant effect on patient care and the practice of medicine. Considering the complexity of human physiology and the intricacy of our law, the nonchalance with which our Legislature sometimes tries to interfuse the two is astonishing. Only a few of the introduced bills have any medical input before drafting. Most undergo scrutiny only after they are written and introduced, if then.

Perhaps the legislators are responding naturally to the general public's high interest in medical matters and the delivery of medical care. However, the unpolished nature of the many medical bills in the legislative agenda suggests a major problem exists in the liaison between the medical profession and the bill writers.

Communication between physicians and legislators has always been somewhat uneasy, or even strenuous, and the reasons for that are of variable obduracy, none insurmountable. Dr. Edward N. Brandt and the Council on State Legislation and Regulation have done a huge amount of work in this arena, and have made some significant accomplishments. However, it seems to be true that, in the main, medical bills still are drafted without medical advice, and thus the Council must study and react to bills that are already written and introduced. Surely it would work better if the bill writers and the knowledgeable physicians could liaise while the dough is still being kneaded.

Until that felicitous day arrives, Dr. Brandt's council must react like watchdogs to the many half-baked schemes that are generated at the statehouse. The council members must work

with incisive intensity during the legislative session to bring professional medical expertise into the bills that are of medical significance. The inexorable legislative schedule of bill introduction, readings, committee votes, and votes by both chambers of the Legislature makes difficult the work of improvement of introduced bills.

The members of the Council on State Legislation need encouragement and direct help to achieve their goal during the legislative session. Our Oklahoma legislators are becoming more willing to listen to, and even sometimes solicit, the opinion of the council and the OSMA on medical matters. But the significance of direct constituent contact with legislators is huge, and therefore it behooves each of us to become knowledgeable about the "hot button" medical bills and make direct contact with our own Representative and Senator. To read and study a bill and report your reaction to your "own" legislator always has a good effect. To be able to corroborate the position of the OSMA Council on a bill is very positive.

Thus we have come again to that time in the legislative cycle when a major presence of OSMA in the public forum should be projected in order to guard our Oklahoma patients from the unanticipated ill effects of imprudent legislation. Each of us in the profession of medicine has a role and a duty in that forum. We can do more.

To read and study a bill and report your reaction to your "own" legislator always has a good effect.

Ray V. McIntyre, M.D.

Milestones

It is with mixed emotions I say "goodbye" as your president. I thank you for the confidence placed in me in representing the Oklahoma State Medical Association this past year. As I have expressed to you in the past, the practice of medicine is a privilege. A privilege which carries many responsibilities and holds significant implications for all of us. As your president, I have taken the responsibilities of my office very seriously and can share with you a sense of accomplishment for the direction our association is taking.



As indicated in our mission statement, it is our responsibility to accept the role of patient advocate. Certainly, this role is addressed daily in the legislative and regulatory process. Under the able direction of the chair of the Council on State Legislation, Dr. Ed Brandt, Jr., our association continually strives to improve the health care delivery system by promoting legislation that is in the best interest of the patients and physicians of Oklahoma and by working to defeat measures detrimental to those goals. This was clearly evidenced last session through the passage of OSMA-initiated legislation, such as the Fairness in Managed Care Act, Breast Cancer Protection Act, trauma system development, informed consent, reforms in drive-through delivery, and immunization bills. I personally want to thank the members of the Legislative Council and its subcommittees for their dedication and specifically commend our state lobbyist, Lynne White, for her significant efforts this past year. I also want to thank the chair of the Council on Governmental Activities, Dr. Richard Boatsman, and our federal lobbyist Mr. John Montgomery for keeping a watchful eye on legislation on the national level. I encourage each of you to become more politically active and support the association's endeavors in these areas. For those of you who gave of your time to talk with legislators on our specific issues, I especially want to say "thank you." I also want to commend Jeff Shaver, MD, chair of OMPAC, who with support from other members of the OMPAC Board, have promoted increased participation in and efforts of our PAC.

It is apparent, however, we as physicians need to continually improve our grassroots contacts to further develop effective relationships with our elected representatives. This need became clearly

evident during the association's recent efforts to defeat S.B. 1192. By now I'm sure you are aware Governor Keating signed into law this measure which now allows optometrists to perform laser eye surgery. To say we were extremely disappointed at the outcome of the legislation would be an understatement. I wholeheartedly concur with the comments of Elliot Finkelstein, MD, president of the American Academy of Ophthalmology, who said, "we believe this action is bad public policy, bad medical policy, and a step backward for eye health and safety for the citizens of Oklahoma." Not only is this appalling on a national level, as we are the only state to allow this, but it invites other health care providers to pursue their own programs which may not be in the best interest of our patients.

Oklahoma's medical doctors have a strong track record of championing important patient care issues which protect our patients' health, and that will not change. We will continue to stay the course, advocating for patients rights and for legislation and rules that protect the public's health.

As to other accomplishments, the association conducted two major searches; one for the OSMA executive director and the other for the director of the Physicians Recovery Program. As chair of the Executive Director Search Committee, I can assure you the committee took their responsibilities very seriously as we diligently worked with a national search firm to screen and interview top candidates from around the nation. As you know, this process resulted in the Board of Trustees' selection of Mr. Brian O. Foy. Mr. Foy, who has been on the job now for approximately three months, has brought energy, enthusiasm and order to his new position. Early on he has demonstrated with enthusiasm his many leadership abilities and physician members can comfortably rely upon him to handle the affairs of the association. If you have not had the opportunity to meet with Brian, I would encourage each of you to do so. He is only a phone call away.

Secondly, with regard to the search for the director for our nationally-known and often emulated Physicians Recovery Program, I wish to thank Dr. James D. Funnell, MD, chairman of the Search Committee and the members of that committee for their time and efforts in evaluating candidates for the position. As you know by now, Interim Director Dr. Harold Thiessen was chosen to be the permanent director, and his experience and leadership has contributed to its continuing success.

Oklahoma's medical doctors have a strong track record of championing important patient care issues which protect our patients' health, and that will not change.

The AMA Delegation, now totaling 16 in number as a result of our unified status, again represented the association during the past year at the AMA's annual and interim meetings, and as president I had the privilege of attending these meetings. Our delegation enjoys a national reputation for its effectiveness, and their effort combined with other members of the Heart of America Caucus, which includes Kansas, Missouri and Arkansas, adds to its strengths. I want to commend the members of the delegation, and specifically the chair, Dr. Jay Gregory for their dedication and commitment to our association. Their efforts merit our thanks and continued support.

The past year was another banner year for PLICO, as it enjoyed a financial performance unequaled in the company's history. That performance permitted PLICO to maintain the same rate structure for 1998 as in 1997. We can be proud and pleased with PLICO's performance and be assured our professional liability program is in its best condition ever. We should give credit to Chairman Floyd Miller, MD, and all members of the PLICO Board for their time commitment and efforts and to C.L. Frates & Company for their continued excellent management of this program.

I wish to commend Doris Edge, president of the OSMA Alliance and all the Alliance members for their support of our association. The Alliance is an integral part of the OSMA and a valued resource to the physicians across our state. Their generous contributions to the Education and Research Foundation leave a lasting impact in our communities.

During the past year, a complete review was made of all OSMA Councils, Committees, and Sections, as well as their duties. I am happy to report that under the direction of dedicated individuals, these Councils, Committees and Sections are functioning appropriately and have made tremendous strides in all areas of OSMA activities. Detailed reports of their activities will be presented during this meeting.

There is one legacy I would like to leave with the OSMA, that being our increasing involvement in the electronic communications arena. In an age of daily change in the environment in which we practice, adequate communication and the prompt and accurate dissemination of information is mandatory. Toward this end, our Council on Professional and Public Relations has initiated a change to incorporate the written word of the *OSMA Journal* and the *OSMA News* with the vast information available on the electronic highway by recommending the formation of a

new Council on Communications. This recommendation will necessitate a bylaws change which will be considered by the House of Delegates during the upcoming Annual Meeting. It is my hope the association will continue with efforts in this direction. Presently, this council is being chaired by Tim Walker, MD.

The association is reaching another milestone as Dr. Mary Anne McCaffree takes the helm as the first female president of the association. Dr. McCaffree, an Enid native and nationally recognized pediatrician-neonatologist, has served our profession admirably as a practitioner of the art and science of medicine. She has participated in medical organizations and associated political activities tirelessly and with respect from colleagues at all levels. I am confident she will guide our the OSMA in a continued and positive direction over the next year. I shall pledge my full support to her, as she has given to me this past year, and anticipate each of you will do the same.

It goes without saying that I deeply appreciate the time and efforts given by the Executive Committee and the Board of Trustees for a successful year.

In closing, I again acknowledge the able and dedicated staff of the OSMA who have provided the more-than-required support enabling me to pursue our goals for the year. I especially want to commend Kathy Musson for her outstanding direction as the interim director of the OSMA during 1997 and 1998, which included the last four months of my tenure as president-elect and the first nine months of my tenure as president. I also wish to acknowledge the dedication and abilities of the other staff members at OSMA: particularly Barbara Matthews, administrative assistant; Shirley Burnett, comptroller; Susan Records, *Journal* managing editor; Judy Lake, OMPAC and legislative assistant; Debbie Adams, membership coordinator; administrative assistants Marilyn Fick, Toni Farrar; and receptionists Janet Carr and Sue Graves.

Again, I thank each of you for the privilege of representing you as president of your association this past year and wish each of you and the OSMA continued success.

Dawn M. Selby, M.D.

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legacy I would
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OSMA MISSION STATEMENT

To promote the best health for the people of Oklahoma in a professional, ethical and compassionate manner by advocating for patients, representing physicians, and promoting the art and science of medicine

GOALS

1. Assume a more active and visible role in promoting and improving health education.
2. Increase physician membership and participation in OSMA.
3. Increase participation in legislative and regulatory processes.
4. Secure significant physician input in all managed care decisions.
5. Increase the unity and collegiality of our profession.
6. Improve and enhance organizational effectiveness and membership services.
7. Communicate more effectively and efficiently with OSMA membership, patients, and the people of Oklahoma.

Time of Change

This time of change in leadership at the OSMA is reminiscent of the end of the year activities in residency programs. It is a moment of farewell and thanks to the volunteer leaders that have completed their active terms and welcome to the newly elected members of the association. This activity of coming and going, of hail and farewell is one that is familiar to all of us. During these times of change, a consistent plan is important. The Long Range Plan of the association has the guidelines, the road map for navigating the way for reaching our goals. This plan, recently updated in the deliberations of the Council on Long Range Planning and Development, contains the mission statement, goals, and strategic initiatives for the association to reach its destination. Detours, delays and some one way roads are expected along the way, much like the constant repairs noted along the highways of our own state roads. A review of a few of these goals indicates how dynamic they are.



OSMA's mission is to promote the best health for the people of Oklahoma in a professional, ethical and compassionate manner by advocating for patients, representing physicians, and promoting the art and science of medicine. Seven goals are identified as a means to reach this mission.

During the first year of this direction the OSMA assumed a more active and visible role in promoting and improving health education. (Goal 1) A public relations firm was hired on a trial basis to develop media press releases focused on legislative efforts during the session. Physician participation in the OSMA has been increased (Goal 2) by establishing a "blast fax" system of rapid communication and expanding the "Week in Review" distribution. Members have participated in the legislative process (Goal 3) by volunteering to serve as "Doctor of the Day" at the legislature. The "key contact" program has been revitalized, and OMPAC efforts have been focused on the voting records of the legislators. The Council on Legislation has met frequently during the session and additional staff added to support the legislative efforts. Physician input on managed care decisions (Goal 4) has been initiated through the Council on Medical Services. The "Hassle Factor Log" has been a vehicle for carrying information from the physicians' office to the Medical Directors'

boardroom. Plans to establish a standard application form for use in credentialing of physicians is on the legislative highway with HB 2578. Unity and collegiality among physicians (Goal 5) has been enhanced by the efforts of working together on the listed projects. The laws regarding professional courtesy are being reviewed. Organizational effectiveness has been enhanced (Goal 6) by the addition of Brian Foy, the Executive Director, and the improved communications within the OSMA. Communications with OSMA membership have been enhanced (Goal 7) by implementing changes in the website, upgrading the computer system and developing a computer committee. Extensive involvement with members of the Alliance, International Medical Graduates, Young Physicians, Resident Physicians and Medical Student Section has begun.

Plans for the OSMA are extensive, will continue to be updated, and are subject to change and delays. Like construction plans for a major roadway, alternate routes have been used while the roadwork has been underway. The input of OSMA membership will help to refine this process and your suggestions are requested. As this process of building continues, the leadership of our OSMA is gratefully acknowledged. Some key workers in this resurfacing project are moving on to another site, and they are bid "Farewell"; Hail to the new volunteers.

Mary Anne McCaffree

Mary Anne McCaffree, MD

During these times of change, a consistent plan is important. The Long Range Plan of the association has the guidelines, the road map for navigating the way for reaching our goals.



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R. Kent Dyer, M.D.
Mark Wood, M.D.

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Arthroplasty for Trapeziometacarpal Arthrosis

Burk T. Young, MD; Ghazi M. Rayan, MD

We evaluated twenty-eight patients (30 thumbs) after ligament reconstruction arthroplasty for trapeziometacarpal arthrosis. The mean age was 60 years, 86% were women, and the average follow up was 38 months. Subjective results showed excellent (40%) or good (57%) pain relief in 97% of patients. Return to previous work or activity level was achieved in 98%. Overall satisfaction was observed in 86% of patients, mostly because of pain relief. Functional improvement was reported for many activities except for jar opening, which continued postoperatively to be the most difficult task to perform. Thumb mobility improved postoperatively. Key pinch strength showed an overall decrease of 27%. Proximal migration of the thumb metacarpal measured 27% and radial subluxation measured 1%. Thumb metacarpophalangeal joint hyperextension was present in >50% preoperatively and in 7 of 30 thumbs postoperatively. Hyperextension was prevalent among women on hormone replacement therapy including three patients who had recurrence of these deformities in spite of attempts to stabilize this joint during surgery.

Trapeziometacarpal joint (TM CJ) osteoarthritis is common among postmenopausal women and results from attrition of the anterior oblique "beak" ligament, the primary stabilizer of

this joint.^{1,2} Surgical techniques described for treating thumb basal joint arthrosis include arthrodesis, trapezial excision with or without tendon interposition, silicone arthroplasty, and total joint arthroplasty.³⁻¹⁶ Arthrodesis is indicated for localized TM CJ arthrosis in young active patients. It provides a stable painless thumb but has the disadvantage of reduced range of motion and is useful only for isolated arthrosis of the TM CJ. Cold flow, wear, subluxation, dislocation, breakage, and silicone synovitis have been reported following implant arthroplasty for advanced osteoarthritis.^{7,17} Trapezium excision without interpositional material often results in an unstable painful joint, weakness, thumb shortening, and persistent adduction deformity.^{10,16} The proximal migration and adduction deformities of the thumb metacarpal following trapeziectomy are due to extrinsic and thenar muscle pull, respectively. Burton and Pellegrini devised an arthroplasty technique that entails anterior oblique ligament reconstruction combined with tendon interposition.¹⁸ This technique has the biomechanical advantage of creating a force that counteracts effectively the radially directed extrinsic forces applied to the thumb during pinch. The purpose of this study was to evaluate our results with TM CJ arthrosis, treated with soft tissue arthroplasty.

Materials and Methods

Between 1987 and 1994, 56 patients (60 thumbs) underwent ligament reconstruction with tendon interposition for TM CJ arthritis. All procedures were performed by the senior author (G.M.R.) or under his supervision. Included in the study were:

From the Orthopaedic Surgery Department, the University of Oklahoma Medical School, and Integris Baptist Medical Center, Oklahoma City, Oklahoma.

Direct correspondence to G. M. Rayan, MD, 3366 Northwest Expressway # 700, Oklahoma City, OK 73112.

Table 1.

Writing
Turning pages
Turning radia knob
Small objects
Jar opening
Tying shoes
Brushing teeth
Combing hair
Using a spoon
Washing face
Bathroom hygiene
Getting dressed
Buttoning a shirt
Ziping pants

Table 1. Fifteen-task questionnaire for assessing functional activities. Occasionally same tasks were nonapplicable as in writing when the nondominant hand was affected.

patients with osteoarthritis or posttraumatic arthrosis of the TMCJ, who had complete rather than partial excision of the trapezium and minimum follow up of one year. Twenty-eight patients were excluded from the study because they had inflammatory arthritis, partial excision of the trapezium, or could not be located and examined. Twenty-eight patients with 30 thumbs satisfied the inclusion criteria and were the subject of this study.

The age range was 48 to 79, with a mean of 60 years. There were 24 women and 4 men. The indications

for surgery were pain (26 patients) and severe deformity with functional impairment (2 patients). Symptom duration prior to surgery averaged 6 years. The etiology was degenerative arthrosis in 27 patients, and posttraumatic arthrosis in one. The operation was performed on the dominant hand in 14 thumbs and the non-dominant hand in 16 thumbs. Two patients had bilateral procedures. Concurrent procedures on the ipsilateral hand were performed in 3 patients. These included proximal interphalangeal joint Swanson arthroplasty, distal interphalangeal joint arthrodesis, and Dar-

rach procedure. Two patients had pseudoarthrosis from previous failed TMCJ arthrodeses. These patients' surgical treatment did not differ from those with primary arthrosis. Four patients had filed for workers' compensation.

All 28 patients (30 thumbs) were evaluated subjectively and objectively. The average follow up at the time of examination was 38 months (range 15 to 77 months).

Subjective.—Pain was graded by a questionnaire as excellent, good, fair, or poor. An excellent grade was complete relief of pain, good was occasional mild pain

with exertional activity, fair was frequent pain with daily activities, and a poor grade was constant pain or pain with any activity.

A questionnaire consisting of 15 routine activities of daily living requiring thumb usage was utilized. Patients were asked if surgery had compromised these activities when applicable and which, if any, of these activities were difficult or impossible to perform with the operated hand at follow up (Table 1). Workers' compensation status and ability to return to previous occupation or activity level following surgery were determined. The patients were questioned about satisfaction with the result of their management and if they would have the surgery again. Reasons for dissatisfaction were documented. Women were asked about hormone replacement to determine if this had any influence on the results, especially hyperextension deformity of the thumb metacarpophalangeal (MP) joint.

Objective.—Opposition of the thumb was assessed by abduction, rotation, and flexion of the thumb tip to the base of the little finger.¹⁹ Adducting the thumb and flexing the interphalangeal joint alone can approximate the thumb tip to the small finger. Abducting the thumb away from the palmar plane similar to the chuck pinch is, however, essential for true opposition. Extension was measured by assessing the patient's ability to place the operated hand flat on the table with the thumb fully radially abducted "palm flat test." An attempt to raise the thumb off the table can be done and would enhance the functional significance of this test. Thumb radial abduction less than 60° constitutes an abnormal test. Ipsilateral and contralateral thumb interphalangeal joint motions were also recorded. Postoperative grip and key pinch strength values were determined and compared to their respective preoperative values when available and to the contralateral side if not affected. The percentage increase or decrease for each of these values was calculated. The thumb-index web space for both hands was measured as previously described.²⁰ Finally, thumb MP joint hyperextension was measured, both at rest and during pinch, for the ipsilateral and the contralateral sides.

Radiographic assessment of basal joint arthrosis severity was determined using the Eaton staging system.⁵ Measurement of proximal migration of the thumb MC and subluxation of the MC base was carried out. To calculate proximal migration, the distance between the thumb MC base and the distal pole of the scaphoid was measured early postoperatively after removal of the Kirschner wire and at follow up. Proximal migration was determined by measuring the average percentage change

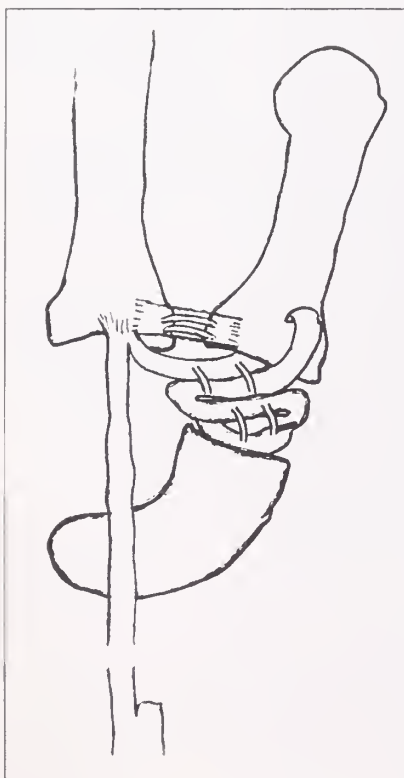


Figure 1. Surgical technique of ligament reconstruction arthroplasty. The metacarpal base is preserved, and the intermetacarpal ligament is enforced. Not shown, the K-wire is placed after soft tissue reconstruction and the capsule is folded within the space for added spacer and stability.

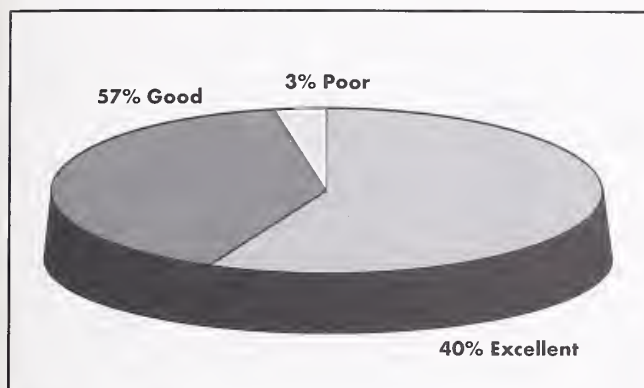


Figure 2. Percentages of pain relief following thumb ligament reconstruction arthroplasty.

in arthroplasty space between the early and recent postoperative follow-up periods. This measurement was obtained from a standardized hyperpronation view for 28 thumbs. Subluxation was measured on a standardized posteroanterior view of the hand, i.e., thumb lateral view. A line tangential to the radial styloid and perpendicular to the shaft of the radius A is drawn. Another perpendicular line B is projected from the first line to the radial flare of the thumb MC base. The distance between line B and the radial styloid is X and recorded as the amount of radial subluxation. Average values for preoperative, early postoperative, and follow-up visits were recorded. From these values, the average percentage correction of subluxation following surgery, and the average percentage increase in radial subluxation between the early postoperative and follow-up periods were calculated. All measurements and calculations were done by one observer (BTY).

Surgical Technique

Our surgical technique is based on a previously described technique by Burton and Pellegrini,¹⁸ but differs from that technique by a number of modifications. We utilize the Wagner approach. The capsule is exposed between the abductor pollicis longus (APL) and extensor pollicis brevis (EPB) tendons and split longitudinally. The tendons, radial sensory nerve, and the radial artery are carefully protected throughout the procedure. The entire trapezium is excised piecemeal without disrupting the flexor carpi radialis (FCR) tendon. The radial half of the tendon is dissected as proximally as possible through three small longitudinal incisions in the forearm. The tendon is split as far distally as its insertion on the index MC and then delivered into the wound.

The thumb MC base is retained and the intermetacarpal ligament is preserved to provide added stability and prevent proximal MC migra-

tion. A drill hole is made in the dorsoradial side of the MC base. The MC canal is then reamed and the free end of the tendon is passed into the medullary canal and through the hole created in the dorsoradial cortex. Longitudinal traction is applied to the thumb and the tendon slip is sewn back onto itself. A sling is thus created to help prevent proximal migration and radial subluxation. Reinforcing the intermetacarpal ligament is done by placing nonabsorbable sutures between the looped tendon or thumb periosteum and the index metacarpal periosteum (Fig. 1). The remainder of

the tendon is then rolled into an "anchovy," placed in the space previously occupied by the trapezium, and sutured to the dorsal capsule. Folding any redundant capsule from the TMCJ into the arthroplasty space and pinning the thumb MC to the index MC are done after the ligament reconstruction. Finally, if MP joint hyperextension of 30 degrees or more is present, palmar plate capsulodesis is performed. For mild hyperextension deformity, an EPB transfer to the MC neck is sufficient.

Postoperative thumb spica splint immobilization is maintained for four weeks. The Kirschner wire(s) is removed at four weeks. Range of motion exercises are initiated at one month but splinting is continued for a total of two months at which time using the hand for daily activities is permitted and gentle resistive exercises are started. Unrestricted activity and resistive exercises for muscle strengthening are allowed at three months postoperatively. A home therapy program is utilized and formal therapy is initiated if considerable stiffness and weakness are present.

Statistical studies used were chi-square analysis (categorical data), linear regression analysis (numerical data), unpaired Student t test, analysis of variance, multiple regression, and covariance.

Results

Subjective.—Pain relief was excellent (40%) or good (57%) in 97% of the patients (Fig. 2). Only one person had a poor rating for pain. This 61-year-old man had been unemployed since age 27 following an injury on the job and had a severely deformed contralateral hand. Intraoperatively he was noted to have mild scapho-trapezio-trapezoidal arthrosis and at most recent follow-up he described a constant throbbing pain at the base of the thumb. Twelve patients experienced occasional cold sensitivity which had no bearing on

Pain relief was excellent (40%) or good (57%) in 97% of the patients...

hand function. Return to previous occupation or activity level was accomplished in 25 of 28 patients (89%). One man was still unable to golf. One woman did not return to work and was unable to thread needles or turn pages. One man did not return to work because history of a psychiatric disorder and ultimately had bilateral carpal and cubital tunnel releases at another institution. Two of the 4 men did not return to work whereas only 1 of the 26 women (3%) did not return to work. Four patients had filed for workers' compensation at the time of surgery. All 4 of these patients were satisfied with the surgery except one patient who stated she would not have the surgery again because of difficult rehabilitation.

Eighty-nine percent of the patients said they would have the surgery over again, given similar preoperative conditions. Overall satisfaction was recorded in 86% of patients, mostly because of pain relief (89%) or because of improved function (11%). Four patients were dissatisfied with the surgery; two because of residual pain in the base of the thumb and the other two because of recurrent collapse of the thumb MP joint. According to our 15-task questionnaire, none of the patients' hand function became compromised after surgery. Patients were able to use their hands better postoperatively in several activities except opening a jar. This activity remained by far the most difficult task to perform following surgery. It was either difficult or impossible to do in 19 of 30 thumbs (63%). The next three tasks that remained difficult to accomplish were buttoning a shirt (6 of 30), turning a doorknob (6 of 30), and picking up small objects (4 of 30). Less frequently listed difficult tasks included brushing teeth, turning pages, tying shoes, using spoons, and zipping pants (Fig. 3).

Objective.—Age, sex, hand dominance, and workers' compensation status had no statistical bearing on any of the objective variables measured. Favorable results were achieved for most tests dealing with thumb mobility. Opposition testing showed that 24 of 30 (80%) thumb tips could touch the head of the small finger metacarpal. Only the proximal interphalangeal joint level of the small finger could be reached in 5 of 30 (17%) thumbs and one thumb tip could only reach the base of the ring finger. A statistically significant difference was observed between those thumbs that could only reach to the small finger proximal interphalangeal level or less and the follow-up time. Those thumbs with less opposi-

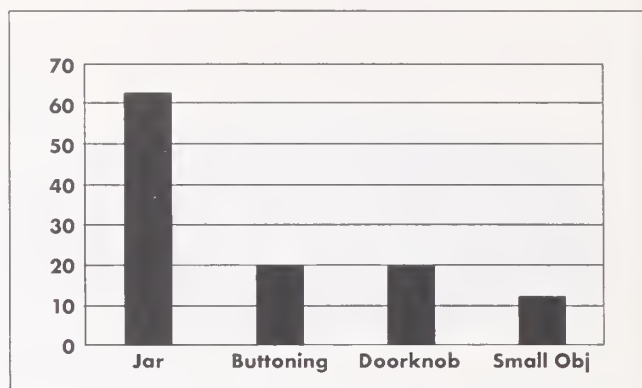


Figure 3. Bar graph showing four functional activities with percentage of patients who had difficulty performing these tasks following ligament reconstruction arthroplasty.

tion had a follow-up of 50 months compared with 27 months for those with full motion ($p=0.0264$). This was influenced by the presence of MP hyperextension and suggests that increased follow-up time from surgery may lead to slight decrease in opposition of the operated thumb. However, subjectively, this did not seem to pose a functional problem.

Extension abduction "palm flat test" could be performed at follow-up in 28 of 30 thumbs. These patients were able to place the palm flat on the table with the thumb extended and abducted at least 60°. Two patients had web space angle of 50° each.

The thumb-index web space angle measurements varied 50° to 115° with average 85° on the operated side and 95° (in 13 asymptomatic hands) on the contralateral side. Comparing the angle of the 13 asymptomatic hands with the respective 13 hands on the operated side, the average difference was not statistically significant.

Thumb interphalangeal motion showed an average of 50° on the operated side and 60° on the contralateral side. The difference was not significant by matched paired t test.

The average percent change in key pinch strength between the pre- and post-operative values measured showed an overall decrease of 27%. Follow-up key pinch strengths were recorded for all thumbs (average 5.6 kg.), but only 7 thumbs had recorded preoperative key pinch strengths. The average percent change in grip strength between the pre- and post-operative values measured showed an overall increase of 13%. Again, follow-up grip strengths were recorded for all hands (39.7 kg.) but we could only find recorded pre-operative grip strengths for 13 hands.

All of the thumbs were either stage III or IV, based on the Eaton staging system.^{4,5} There were 22 of 29 thumbs (76%) with stage III arthritis and

Thumb MP joint hyperextension, either static or dynamic, developed in 7 patients postoperatively, all of whom were females receiving hormones.

7 thumbs (24%) with stage IV. Statistical analysis did not demonstrate significant relationships between disease stage and any of the objective criteria tested.

The amount of proximal migration of the thumb MC was 27%. Longer follow-up was associated with increased proximal migration and a greater percentage decrease in arthroplasty space ($p<0.01$). This had no adverse impact on pain or function. Capsulodesis had a positive statistical relationship to proximal migration, especially when compared with thumbs that did not have capsulodesis and developed MP hyperextension postoperatively ($p<0.05$).

The average improvement or reduction in subluxation, between the preoperative and immediate postoperative evaluations, was 42%. The average improvement between the preoperative and follow up evaluations was 41% ($p<0.05$). Therefore the overall average subluxation of the metacarpal base, between the immediate postoperative and follow-up evaluations was a negligible 1%.

A total of 17 of 30 thumbs (56%) had either EPB transfer (5) or capsulodesis with or without EPB transfer (12), indicating that MP joint hyperextension was present to some degree in more than 50% of the patients preoperatively. MP joint capsulodesis was performed in 12 of 30 thumbs which demonstrated thumb MP joint hyperextension of 30 degrees or more. EPB transfer to the thumb MC neck was performed in 8 of 30 thumbs for MP joint hyperextension of less than 30 degrees. Combined capsulodesis and EPB transfer was done in 3 patients. Eight patients had

capsulodesis through a volar approach and 4 through lateral approach.

Thumb MP joint hyperextension, either static or dynamic, developed in 7 patients postoperatively, all of whom were females receiving hormones. Recurrence after capsulodesis developed in 3 patients and 4 patients did not have prior capsulodesis because they had mild preoperative hyperextension. Two of the patients with recurrence of collapse had capsulodesis through lateral approach. One of the 3 patients with recurrence was treated with MP arthrodesis. For the 7 thumbs with hyperextension, the average follow-up was 57 months, whereas for the remaining thumbs without hyperextension, the average follow-up was only 23 months. This was statistically significant ($p=0.0003$). None of the 4 males in the study demonstrated collapse of the thumb MP joint at follow-up. Statistical analysis was done for the women on hormone replacement and with the presence or absence of thumb MP joint hyperextension. Twenty of the twenty-four women (83%) in the study took hormone replacement. Seven of twenty-two operative thumbs (32%) of those on hormone replacement demonstrated MP joint collapse at follow-up, whereas none of the four operative thumbs of those not taking hormones demonstrated MP joint collapse ($p=0.187$). There was a trend for the contralateral thumb of those on hormone replacement to demonstrate MP joint hyperextension. Ten of 22 contralateral thumbs (45%) of the hormone replacement group had MP joint collapse at follow-up as compared with none of the four contralateral thumbs of those women not taking hormones.



Figure 4. Preoperative x-ray of a 54-year-old Caucasian female with advanced stage osteoarthritis. She had painful trapeziometacarpal joint and a 5-year history of progressive weakness, dropping objects, and functional limitation. She had tenderness, positive grind test with key pinch strength of 5 kilograms, and grip strength of 15 kilograms.

Figure 5. Twenty-two months following arthroplasty, the patient achieved satisfactory pain relief and functional recovery. She was satisfied and her pain relief was rated good because occasional mild discomfort and periodic cold sensitivity. She had difficulty opening jars, but she could easily perform all other tasks. Key pinch strength improved 50% and grip strength improved 70%. Thumb metacarpal proximal migration measured 12% as compared with immediate postoperative period with no distal radial subluxation.

Discussion

Compressive forces of great magnitude are generated at the TMCJ during grasp and pinch,²¹ hence providing joint stability during arthroplasty is necessary to resist such forces. The importance of the anterior oblique ligament (AOL) as the primary stabilizer and the intermetacarpal ligament as a secondary stabilizer of the TMCJ has been demonstrated by Imaeda, et al.¹ They concluded that attenuation of the AOL plays a major role in the development of TMCJ arthrosis. The premise of the Burton-Pellegrini technique¹⁸ is to reconstruct this important AOL with the FCR tendon and thereby provide stability, counteract radial displacing forces, and prevent axial shortening of the thumb MC. Other features of the procedure include partial or complete trapezial excision and soft tissue interposition to act as a biologic spacer. The results of our study have shown that this arthroplasty technique with some modification does indeed provide substantial lateral stability and can correct and prevent joint subluxation.

Tomaino, Pellegrini, and Burton¹⁴ recently reported long-term results of their technique. They achieved 95% patient satisfaction and excellent pain relief, and their patients were able to open jars and car doors and use keys. Their results showed an increase in grip and pinch strength values, 92% ability to touch the base of the little finger, radiographic web angle of 40%, 11% subluxation, and 13% proximal migration.

Our patients achieved a level of patient satisfaction similar to that reported by Tomaino et al,¹⁴ mostly because of pain relief and the ability to return to previous job or activity level. Our functional activities questionnaire, however, showed that jar opening could not be regained easily after surgery and most patients encountered difficulty performing this task. This is probably due to residual weakness. Other less difficult tasks included buttoning a shirt, turning a doorknob, and picking up small objects.

The objective results showed that our patients have achieved functional range of motion and thumb-index web space angle; however, longer follow-up was associated with slight decrease in opposition especially in patients who developed MP hyperextension.

The contrast in web space angle values between our patients and those of Tomaino et al is perhaps due to difference in measurement methodology. We measured the space outline directly from a patient's hand rather than from radiographic bony landmarks. The preoperative key pinch values were few, therefore when these were not available the postoperative values were com-

pared to the contralateral side if not diseased. Our data showed an overall decrease in key pinch strength which is in contrast to the results of Tomaino et al who achieved a 34% improvement in pinch strength.¹⁴ Radiographically our patients showed 27 % progressive proximal migration of the thumb MC which was greater than the 13% reported value in Tomaino et al study.¹⁴ This is perhaps due to interobserver differences in radiographic measurements. We observed also that thumbs treated with capsulodesis were associated with significantly less migration than those without capsulodesis and residual MP hyperextension. This lends credence to the importance of stabilizing the MP joint for preventing proximal migration following TMCJ arthroplasty. Lateral stability was achieved in all our patients and substantial 40% correction of subluxation was achieved following surgery.

Recently we adopted technical strategies that we believe can help improve the results following arthroplasty. These include minimal resection of the metacarpal base (especially ulnarly), intermetacarpal ligament repair or reinforcement, and capsular invagination. We believe that enforcing the intermetacarpal ligament which is a secondary stabilizer to the TMCJ, creates a strong sling to counteract the abductor pollicis longus pull and have a favorable effect especially on lateral subluxation. Infolding the TMCJ capsule within the scaphometacarpal cavity acts as additional spacer and helps minimize proximal migration. The Kirschner wire is placed after the ligament reconstruction in order to ensure adequate tension.

We excise the entire trapezium which helps correcting any thumb index web space contracture. Partial excision of the trapezium makes it difficult to pass the tendon slip from the forearm to the hand and may result in trapeziometacarpal impingement and residual pain. We have used one half of the FCR tendon in order to maintain wrist flexion strength and avoid placing a large hole in a possibly osteoporotic MC bone which may cause fracture pullout of the tendon. There is merit, however, in using the whole FCR tendon as it adds bulk to the interposition material.

Pain relief and satisfactory results with other soft tissue arthroplasty techniques were reported to vary from 85% to 99%.^{9,11,15,16} Pain relief was also obtained in the great majority of cases following silicone trapezium implant arthroplasty.¹³ Similarly silicone-Dacron arthroplasty may result in a high satisfactory rate.²² The use of implants, however, has the potential for complications such as symptomatic instability, implant brakeage, and particulate synovitis. Semicon-

Ligament
reconstruction
arthroplasty
provides
satisfactory
subjective
outcome for
patients with
TMCJ arthrosis.

strained silicone trapezium arthroplasty using tenodesis can achieve satisfactory results, but often result in MP joint hyperextension and less mobile or restricted motion at the TMCJ.⁸

We found that MP joint hyperextension is more common than previously reported and prevalent among menopausal females receiving hormone replacement. Thirteen patients had capsulodesis preoperatively; all but one (#6) were females on hormone therapy. Seven patients developed MP hyperextension deformity postoperatively, but only 3 of 13 patients had recurrence of hyperextension after capsulodesis. Utilizing EPB transfer alone is insufficient to correct hyperextension deformity. Capsulodesis of the MP joint or EPB transfer were performed in nearly two-thirds of our patients to correct MP joint hyperextension. Two patients with recurrence of collapse and unsatisfactory results had capsulodesis through lateral approach. A palmar approach for capsulodesis provides better exposure than lateral approach and ensures adequate plication of the palmar plate. Adequate capsulodesis can provide satisfactory MP joint stability; however, in patients on hormone therapy or with significant preoperative MP joint instability, an MP arthrodesis may be a more reliable alternative.

In conclusion, ligament reconstruction arthroplasty provides satisfactory subjective outcome for patients with TMCJ arthrosis. In spite of postoperative pain relief, certain functional activities and pinch strength could not be restored. A protected home therapy program may favorably effect the pinch strength. Progressive proximal migration of the thumb metacarpal, although undesirable, did not seem to correlate with pain or have adverse impact on function. Recurrent thumb MP joint hyperextension occurred postoperatively, especially among post menopausal women on hormone replacement, and have contributed to weakness of pinch and unsatisfactory results. Capsulodesis of the MP joint through a palmar approach should be considered for postmenopausal females who are taking hormone replacement and require TMCJ arthroplasty even for 10° of hyperextension. Consideration should be given to MP arthrodesis for joint arthrosis, severe hyperextension, or lateral instability.

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Characteristics and Hospital Utilization of the Oklahoma Medicare Population: 1994–1996

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Background and Objectives: Epidemiologic surveillance reports that focus on hospital utilization are limited in number. The objective of this study was to provide a current profile of the demographic characteristics of the Oklahoma Medicare population and to profile trends in hospital utilization.

Methods: Using the Medicare enrollment files and discharge claims data sets for 1994 through 1996, demographic characteristics and surveillance measures were calculated for enrollees based on age, sex, race/ethnicity, principal diagnosis, and primary procedure. In addition, average hospital charge and average reimbursement were evaluated by diagnosis-related group.

Results: The Oklahoma Medicare population has grown by 2.5% from 1994 through 1996. The majority (87.5%) of the enrollees are aged 65 or greater. Of those less than 65 years of age, most

are enrolled in the program because of disability. Less than 5% of the Medicare population was enrolled in a managed care plan during 1996. The overall length of stay, in-hospital mortality, and 30-day mortality rates have declined for all age groups and principal diagnoses profiled. More than one fifth of all of the Medicare discharge claims were related to heart disease. **Conclusions:** The Medicare discharge claims files represent a useful source of data from which to conduct surveillance on this population. The declining rates of mortality and length of stay that were demonstrated for all Medicare age groups must be taken into account in any evaluation of health care services that seeks to address the impact of quality improvement or utilization management strategies over time.

Epidemiologic surveillance of health care services can be defined as the ongoing, systematic collection, analysis, interpretation, and dissemination of health data to help guide policy, intervention, and evaluation. Epidemiologic surveillance allows for the monitoring of patterns and trends in health and health care, and for the identification of variations in health care delivery. Use of such information can help providers of health care services to prioritize their resources and target certain population subgroups or clinical conditions for which variations in care delivery or outcomes are identified.

The Oklahoma Foundation for Medical Quality (OFMQ), as the designated peer review organization for the Medicare Program in Oklahoma, has entered into Round 5.0 of the Health Care

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Quality Improvement Program (HCQIP) Scope of Work. Under this contract, PROs are expected to use epidemiologic reports provided by the Health Care Financing Administration (HCFA) and other available data to perform surveillance analyses. Specifically, PROs utilize this information to (1) monitor patterns, trends, and variations in health and health care among Medicare beneficiaries both by geographic area within the state and in state-to-nation comparisons; (2) identify sentinel events or clusters of events that may indicate less-than-optimal care; (3) identify, prioritize, and act upon opportunities for improvement; and (4) evaluate the impact of selected HCQIP projects on morbidity, mortality, utilization, and other measures captured by surveillance studies.

Epidemiologic surveillance reports that focus on hospital utilization are limited in number. The most extensive surveillance reports on hospital utilization are compiled by the Centers for Disease Control and Prevention (CDC), National Center for Health Statistics.¹⁻³ Since 1965, the National Center for Health Statistics has collected data from inpatient records obtained from a national sample of non-Federal general and short-stay specialty hospitals in the United States (the National Hospital Discharge Survey). Information from this survey is utilized to generate reports on hospital discharge diagnoses and procedures, mortality rates, length of stay, principal payment sources, summary of long-stay patients in short-stay hospitals, and others. The information in this report is not state-specific. HCFA has recently released *Quality Résumé*, the Medicare Quality of Care Surveillance System data report.⁴ This report is designed to provide useful information to PROs about utilization, patterns, and trends in health care for Medicare beneficiaries. In addition to these reports, other detailed statistics on member hospitals are compiled and published annually by the American Hospital Association.⁵

The most recent information available in the surveillance reports from the National Center for Health Statistics¹⁻³ provides details of hospital care that occurred during 1994 or before. The purpose of this report is to provide a current profile of the demographic characteristics and hospital utilization of the Oklahoma Medicare population. In addition to providing current information, identified trends in hospital utilization

for discharges that occurred during calendar years 1994 through 1996 are provided in this report.

Methods

Data Collection.—The main sources of data for this report included the discharge claims for Medicare patients and the Medicare enrollment files as compiled by HCFA and made available to state PROs. The discharge claims data sets are also known within the organization as MedPRO^a or ISAT^b for 1994-1995 and 1996 claims, respectively. No sampling methods were used. All records that met the selection criteria were included in the analysis. The time of observation included a period of three calendar years (1994, 1995, and 1996). The selection criteria for patient claims were: (1) fee-for-service discharge claims (claims processed by managed care organizations are usually not reported in the MedPRO or ISAT data sets); and (2) discharge claims from short-stay, acute care hospitals (excluding other types of facilities such as rehabilitation hospitals, psychiatric hospitals, and the so-called "swing" beds). For each year the discharge load included all the eligible cases discharged between January 1 and December 31. Other criteria, such as the exclusion of patients who died in the hospital, when calculating readmission rates, are explained with the description of the analysis to which they apply. With respect to the number of Medicare enrollees, which provide denominators for some analyses, the selection criteria were: (1) beneficiaries alive as of July 1 (excluding those who died before July 1 for each year); and (2) eligible for the fee-for-service benefits in July for each year (excluding those who were not entitled to Medicare benefits in July or those who were members of managed care organizations whose claims were to be processed by those organizations.) Except for the first table (as presented in the Results section), analyses for this report focused on Medicare enrollees and patients aged 65 years and over.

Discharge records (either MedPRO or ISAT data sets) contain primarily administrative data. These data include the patient's identification number, demographic characteristics (age, gender, race/ethnicity, and county of residence), dates of admission and discharge, the principal diagnosis, up to nine secondary diagnoses, and up to six diagnostic or surgical procedures performed during the hospitalization. In addition, the diagnosis-related group (DRG) at discharge, the code for the hospital where the patient was treated, the date of death if deceased (vital status is regularly updated even after discharge until the

a. MedPRO originates from the MedPAR (Medicare Provider Analysis and Review) file which contains post-payment information on all hospital Medicare stays.

b. ISAT stands for Inpatient Standard Analytic Tables extracted from HCFA Oracle database and made available to state peer review organizations.

release of each annual data set), the admission source, the discharge destination, the total charge, and the Medicare reimbursement amount are included. All the diagnoses and procedures were coded using the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM). Consistent with similar surveillance systems (e.g., the National Hospital Discharge Survey¹), the unit of observation was the discharge claim, not the actual person. A patient who was hospitalized and discharged twice during the year

would be counted twice; i.e., representing two distinct cases.

Statistical Methods.—The statistical procedures were primarily descriptive. Data manipulations and computations were performed using the SAS statistical software (SAS Institute, Inc., Cary, N.C.).⁶ Most of the surveillance measures (expressed as rate per one hundred or per one thousand) can be defined in terms of a numerator and denominator. For the 30-day readmission rate, patients who had died in the hospital were excluded from the denominator. A transfer from another short-stay hospital in less than two days was not considered a readmission and was excluded for this specific analysis. The arithmetic mean was used for measures expressed in terms of average, e.g., the average length of stay, the average total charge, and the average Medicare reimbursement. The life table procedure (Kaplan-Meier) was used to compute the 30-day mortality rate (which also included deaths that occurred in the hospital).⁷ The utilization rates by county were gender- and age-adjusted using the state fee-for-service Medicare enrollees as the standard population. Approximately 3% of claims with state or county codes outside of Oklahoma were excluded for this analysis.

Table 1. Demographic Characteristics of Oklahoma Medicare Enrollees - 1996

	<65 Years n (%)	≥ 65 Years n (%)
A. Number of enrollees	61,833 (100.0)	431,133 (100.0)
B. Gender		
Male	36,738 (59.4)	174,835 (40.6)
Female	25,095 (40.6)	256,298 (59.4)
C. Race/ethnicity		
White	49,442 (80.0)	396,485 (92.0)
African American	6,135 (9.9)	19,121 (4.4)
Native American	1,046 (1.7)	1,933 (0.4)
Hispanic	303 (0.5)	511 (0.1)
Asian	105 (0.2)	546 (0.1)
Other	4,388 (7.1)	8,466 (2.0)
Unknown	414 (0.7)	4,071 (0.9)
D. Type of Coverage		
Fee-for-service	60,276 (97.5)	410,219 (95.1)
Managed care	1,557 (2.5)	20,195 (4.9)

Table 2. Utilization of Inpatient Services - 1996

Characteristics	Number of FFS Enrollees n (%)	Number of Discharge Claims n (%)	Utilization per 1,000
Oklahoma	410,219 (100.0)	125,808 (100.0)	307
A. Gender			
Male	166,111 (40.5)	50,680 (40.3)	305
Female	244,108 (59.5)	75,128 (59.7)	308
B. Race/Ethnicity			
White	376,802 (91.9)	115,163 (91.5)	306
African American	18,396 (4.5)	5,821 (4.6)	316
Native American	1,898 (0.5)	824 (0.7)	434
Hispanic	487 (0.1)	154 (0.1)	316
Asian	522 (0.1)	174 (0.1)	333
Other	8,238 (2.0)	2,584 (2.1)	314
Unknown	3,876 (0.9)	1,088 (0.9)	281
C. 5-year age group			
65 to 69 years	115,112 (28.2)	23,420 (18.6)	203
70 to 74 years	105,156 (25.6)	26,765 (21.3)	255
75 to 79 years	80,912 (19.7)	25,765 (20.2)	314
80 to 84 years	56,742 (13.8)	22,424 (20.2)	404
85 years & over	52,287 (12.7)	27,288 (21.7)	522

*Beginning with Table 2, all data are limited to beneficiaries enrolled in the fee-for-service system and aged 65 years and over

Results^c

The Oklahoma Medicare population has increased from 480,927 enrollees in 1994 to 492,966 in 1996. The vast majority of these Medicare enrollees are people 65 years of age and over. The proportion of beneficiaries 65 years of age and over has remained at approximately 87.5% over the last three years as compared to 12.5% for Medicare enrollees under 65 years. Demographic characteristics of the Medicare enrollees are summarized in Table 1. Medicare enrollees aged 65 years and over and those young-

c. Due to space constraints, the tables in this article present a summary of the surveillance measures evaluated by OFMQ. Most of the 1994 and 1995 surveillance measures were not reported when they provided little or no additional information as compared to 1996 data. A set of reports with the complete surveillance measures for each year is available upon request from the authors. Detailed reports of 1995 data were previously mailed to all Oklahoma acute care hospitals and other interested parties in the state.

er than 65 years constitute two different populations in many respects. More than 90% of the Medicare beneficiaries under 65 are enrolled in the program as a result of disability. Among Medicare enrollees aged 65 years and over, disability as the original reason for enrollment accounts for less than ten percent. The predominance of males over females among Medicare enrollees under 65 years of age contrasts with the usual predominance of females over males among Medicare enrollees 65 years of age and over (approximately 60% versus 40%). The proportion of beneficiaries in each of the racial/ethnic minority groups is at least two times higher among Medicare enrollees under 65 years than among those aged 65 years and over (Table 1). Although the proportions of beneficiaries for whom claims are processed by managed care organizations have remained below five percent in any group between 1994 and 1996, they have nearly doubled; from 1.3% to 2.5% for Medicare enrollees under 65 and from 2.6% to 4.9% for enrollees aged 65 years and over. Despite the fact that classification of beneficiaries in the race/ethnicity group designated as "other" has been discouraged by HCFA, the proportion of patients in this group increased (at a higher rate among Medicare enrollees under 65 years of age). Distinct codes for the various racial/ethnic minority groups were introduced during mid-1994 (see Discussion).

The utilization rate for inpatient services in 1996 by demographic group is summarized in Table 2. As indicated earlier, results related to discharge claims (beginning with Table 2) refer only to Medicare enrollees aged 65 years and older who were enrolled in the fee-for-service system. The exclusion of beneficiaries enrolled in managed care (less than five percent in any year) did not alter the demographic distribution of the Oklahoma Medicare population. Over the last three years, approximately 385,000 discharge claims have been submitted to HCFA for Oklahoma fee-for-service Medicare inpatients aged 65 years and older. Overall, the utilization rate of inpa-

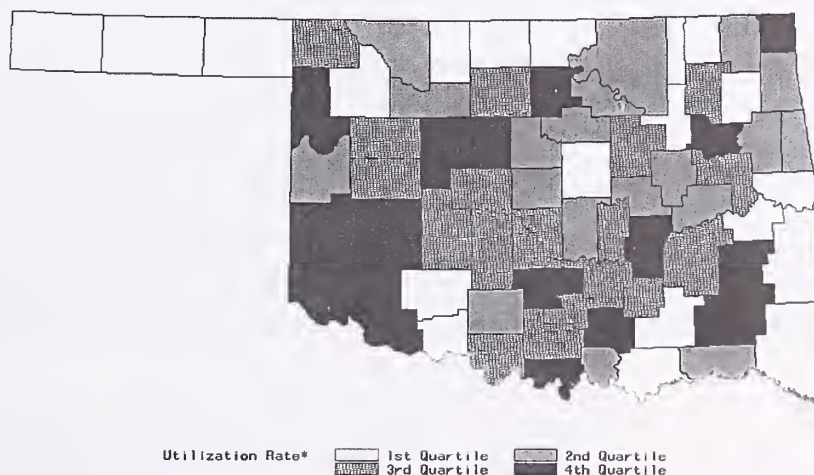
tient service was approximately 310 per 1,000 Medicare enrollees per year in the state. Large variations observed between minority racial/ethnic groups across years may be due to the lack of consistency in the coding system (see Discussion). With respect to age group, the rate of hospitalization in any year increased as the age of the Medicare population increased (Table 2). The geo-

Table 3. Admission Source and Discharge Destination

	1994 n (%)	1996 n (%)
A. Number of claims	129,522 (100.0)	125,808 (100.0)
B. Admission source		
Emergency room	62,585 (48.3)	61,125 (48.6)
Physician referral	62,055 (47.9)	57,965 (46.1)
Clinic Referral	1,493 (1.2)	1,761 (1.4)
Transfer from hospital	1,395 (1.1)	2,304 (1.8)
Transfer from *SNF	136 (0.1)	256 (0.2)
HMO referral	85.0 (0.1)	100 (0.1)
Other types of facilities	1,708 (1.3)	2,046 (1.6)
Court/law	38 (0.0)	42.0 (0.0)
Unknown source	27.0 (0.0)	209 (0.2)
C. Discharge Destination		
Home, self care	75,716 (58.5)	70,436 (56.0)
Intermediate care facility	13,290 (10.3)	11,102 (8.8)
Skilled nursing facility	11,167 (8.6)	15,793 (12.6)
Home, health service care	10,915 (8.4)	11,541 (9.2)
Short-term hospitals	4,504 (3.5)	4,415 (3.5)
Other types of facilities	5,026 (3.9)	4,992 (4.0)
Inpatient death	8,434 (6.5)	7,166 (5.7)
Left against medical advice	451 (0.3)	339 (0.3)
Unknown	19 (0.0)	24 (0.0)

* Skilled nursing facility

Figure 1. Gender and Age-Adjusted Utilization Rate by County - 1996



* Utilization Rate per 1,000 Medicare Enrollees adjusted by gender and age.
1st Quartile: 107-278; 2nd Quartile: 279-312; 3rd Quartile: 313-346; 4th Quartile: 347-449.

Table 4. Common Surveillance Measures by Demographic Group

	Average Length of Stay (days)		30-day Readmission Rate (%)		In-hospital Mortality Rate (%)		30-day Mortality Rate (%)	
	1994	1996	1994	1996	1994	1996	1994	1996
Oklahoma	6.4	5.5	15.0	14.6	6.5	5.7	10.1	9.6
A. Gender								
Male	6.4	5.5	16.3	15.6	7.2	6.3	11.2	10.7
Female	6.4	5.6	14.2	13.9	6.0	5.3	9.3	8.8
B. Race/Ethnicity								
White	6.4	5.5	14.9	14.4	6.5	5.7	10.0	9.6
African American	7.0	5.9	16.2	15.7	7.7	5.8	11.6	9.8
Native American	6.4	5.6	19.5	18.1	4.6	6.2	7.0	10.2
Hispanic	6.0	5.5	15.1	17.9	5.3	4.5	11.8	5.2
Asian	5.4	5.7	13.7	17.4	2.6	3.4	2.6	5.2
Other	6.4	5.7	17.9	18.1	6.8	4.7	10.4	9.4
Unknown	6.7	5.3	13.9	13.4	7.0	4.9	8.6	7.5
C. 5-year age group								
65 to 69 years	6.0	5.3	15.0	14.1	4.4	3.8	6.6	6.3
70 to 74 years	6.2	5.4	14.6	14.9	5.1	4.6	7.6	7.2
75 to 79 years	6.5	5.6	15.2	14.3	6.2	5.4	9.4	9.4
80 to 84 years	6.5	5.7	15.1	15.2	7.1	6.2	11.2	10.7
85 years and over	6.8	5.8	15.3	14.6	9.8	8.3	15.6	14.9

Table 5. Selected Principal Diagnoses and Common Surveillance Measures

Principal Diagnosis	ICD-9-CM Code	Average Length of Stay (days)		30-day Readmission Rate (%)		In-hospital Mortality Rate (%)		30-day Mortality Rate (%)	
		1994	1996	1994	1996	1994	1996	1994	1996
All Diagnoses		6.4	5.5	15.0	14.6	6.5	5.7	10.1	9.6
Heart Disease	390-398, 402, 404,								
	410-429	5.9	5.0	18.4	17.4	7.0	6.1	10.3	9.4
congestive heart failure	428.0	6.4	5.4	21.8	21.3	8.1	6.6	13.1	11.8
ischemic heart disease	410-414	5.8	4.9	17.2	16.2	7.2	6.6	9.8	9.2
arrhythmias	427	4.4	3.8	15.8	13.9	4.4	3.7	6.7	5.8
Cancer excluding skin	140-171, 173-208	8.0	7.3	17.4	16.4	10.2	9.0	18.0	17.0
lung/bronchus	162	8.5	8.0	23.0	19.4	16.5	16.0	28.6	28.2
colorectal	153,154	10.7	10.1	15.4	15.3	7.9	5.5	11.4	8.5
Cerebrovascular disease	430-438	5.9	5.0	12.4	11.6	7.7	6.7	11.7	11.2
Pneumonia & influenza	480-487	7.8	6.8	14.2	14.5	11.0	9.1	15.9	14.7
Chronic obstruct pulmonary ds.	490-496	6.2	5.4	16.0	17.0	3.4	2.4	6.1	6.0
Diabetes mellitus	250	7.2	5.7	15.3	14.9	3.4	2.9	6.4	6.4
Infections of kidney and UTI	590, 595, 599.0	6.1	5.1	14.6	15.7	3.1	2.3	6.8	7.2
Benign prostatic hypertrophy	600	3.6	2.8	7.2	8.3	0.3	0.3	0.8	1.0
Hip fracture	820	7.5	6.1	11.2	11.0	3.5	2.8	6.6	6.9
Septicemia	038	8.2	6.9	16.2	15.4	22.2	15.9	27.4	22.0
Aspiration pneumonia	507	9.0	7.7	21.8	16.3	24.9	21.8	35.4	34.1
Osteoarthritis excluding spine	715	6.0	4.6	5.5	5.7	0.1	0.5	0.4	0.5
Dehydration	267.5	6.0	4.9	18.9	16.9	6.8	4.1	16.1	11.4
Unspecified chest pain	786.5	2.8	2.3	10.8	8.9	0.3	0.2	1.1	1.1
Respiratory failure	518.81	9.4	8.0	18.6	20.9	28.3	27.5	33.2	33.8

graphic distribution of gender- and age-adjusted hospital utilization rates by county in 1996 are illustrated in Figure 1.

Approximately 95% of Medicare inpatients were admitted to the hospital from two equally important sources: emergency rooms and physi-

cians' referrals (Table 3). With respect to the discharge destination (Table 3), more than half of the Medicare patients were able to return home under self care. While the proportion of patients transferred to intermediate care facilities (ICF) decreased from 10.3% in 1994 to 8.8% in 1996,

Table 6. Selected Procedures and Common Surveillance Measures

Procedure	ICD-9-CM Code	Average Length of Stay (days)		30-day Readmission Rate (%)		In-hospital Mortality Rate (%)		30-day Mortality Rate (%)	
		1994	1996	1994	1996	1994	1996	1994	1996
Cardiac Catheterization	37.21-37.23	7.4	6.1	15.8	15.0	4.0	3.8	4.8	5.0
left heart catheterization	37.22	7.1	5.9	15.5	14.4	3.6	3.2	4.1	4.2
Removal coronary obstruction	36.01, .02, .05	5.4	4.2	11.4	12.8	3.3	3.8	3.6	4.3
PTCA	36.01	5.3	4.2	11.4	13.1	3.0	3.6	3.5	4.0
Coronary artery bypass	36.1x-36.2	11.6	9.7	13.4	12.6	6.3	4.5	6.0	4.9
Pacemaker dev./lead	37.7x-37.8x	6.4	5.6	14.7	12.9	6.2	5.5	8.3	6.9
Coronary endarterectomy	38.12	5.5	4.6	14.0	11.7	1.2	0.5	2.1	0.9
Hemodialysis	39.95	9.7	8.8	28.5	27.6	13.8	10.6	16.5	15.5
Cholecystectomy	51.22	11.4	9.9	10.7	10.6	6.0	4.9	6.4	5.2
Laparoscopic cholecystectomy	51.23	6.0	6.0	10.0	10.3	2.1	2.2	3.2	2.9
Total knee replacement/revision	81.54-81.55	6.0	4.8	4.3	4.9	0.1	0.5	0.4	0.5
Transurethral prostatectomy	60.2	4.7	3.7	9.0	8.5	0.5	0.3	1.3	1.7
Hip replacement/revision	81.5-81.53	7.5	6.0	9.3	9.5	2.2	2.0	3.9	4.8
Partial/total colectomy	45.7x-45.8	13.2	12.0	13.5	13.3	8.6	8.0	9.9	8.9
Hysterectomy	68.3, .7, .9	5.0	4.6	6.1	4.9	0.6	0.7	1.2	1.3
Mastectomy	85.41-85.48	3.6	3.0	5.1	4.6	0.0	0.5	0.0	0.8
Radical prostatectomy	60.5	5.6	4.1	3.3	4.6	0.0	0.6	0.0	0.6
Lominectomy	03.0x	6.0	4.7	6.7	5.6	0.4	0.1	1.0	0.6

* The letter "x" in an ICD-9CM code stands for any number, 0 through 9.

the proportion of those transferred to skilled nursing facilities (SNF) increased from 8.6% in 1994 to 12.6% in 1996.

Common surveillance measures including length of stay, 30-day readmission rate, in-hospital mortality rate, and 30-day mortality rate are summarized by demographic group in Table 4. For the entire state, the average length of stay has decreased from 6.4 to 5.5 days per patient per hospitalization (Table 4). The in-hospital mortality and the 30-day mortality rates have declined from 6.5% to 5.7%, and from 10.1% to 9.6%, respectively (Table 4). A breakdown by gender or by age group reveals similar trends. In addition, length of stay, in-hospital mortality, and 30-day mortality increase with patient age (Table 4). With respect to race/ethnicity, only white and African-American patients follow these trends over time. Once again the coding issue for "other" minority groups makes these results difficult to interpret. The increased mortality rates from 1994 to 1996 noted in Table 4 for Native American and Asian beneficiaries are based on very small numbers of Medicare enrollees. The 30-day readmission rate did not show any particular pattern over time or by demographic group.

Based on the recorded principal diagnosis, more than one fifth of discharge claims were related to heart disease. While the frequencies and rates (data not shown) of most of the diagnoses listed in Table 5 appear relatively stable over time, there was an increased frequency of discharges

for conditions such as chronic obstructive pulmonary disease (COPD), septicemia, pneumonitis by aspiration of liquids or solids, and dehydration. The length of stay has decreased for the selected principal diagnoses (Table 5). The 30-day readmission rate by diagnosis does not seem to follow any particular trend. Although the general trend is toward a decrease in the in-hospital mortality and the 30-day mortality rates, there is a great deal of variation between diagnoses as shown in the selection presented in Table 5. Similar data by selected diagnosis-related group (data not shown) demonstrated trends that paralleled those for principal diagnoses.

Surveillance measures related to common procedures performed on hospitalized Medicare beneficiaries (Table 6) show even more variation and fewer common trends. Apart from the length of stay which is consistently decreasing for all of the procedures selected, the other surveillance parameters do not seem to follow a uniform trend. The frequencies and rates of discharge claims (data not shown) associated with the selected procedures increase for some, decrease for others, or show no trends at all from 1994 through 1996. The statewide trend toward a decrease in the in-hospital mortality and the 30-day mortality rates by diagnosis is not apparent for most of the selected procedures. It should be noted that the surveillance measures for the selected procedures actually represent the hospitalization episodes during which the procedures were performed and

Table 7. Selected Diagnosis Related Groups (DRGs) and Cost-related Measures

Principal Diagnosis	DRG Code	Average Hospital Charge (\$)		Average Medicare Reimbursement (\$)	
		1994	1996	1994	1996
All DRGs	-	9,795	10,358	4,856	5,274
Heart failure & shock	127	6,688	6,599	3,345	3,530
Simple pneumonia & pleurisy >17 w c	089	7,343	7,399	3,562	3,677
Spec Cerebrovascular disease exc TIA	014	7,385	7,548	3,894	4,088
Respiratory infection & Infl. >17 w c	079	10,179	10,250	5,777	5,878
Major joint & limb prac lower extrem	209	16,337	17,022	8,213	8,252
Chronic obstructive pulmonary disease	088	6,560	6,539	3,211	3,378
Esophageal, gstraint & misc. > 17 w c	182	5,073	4,995	2,313	2,502
GI hemorrhage with cc	174	6,660	6,895	3,077	3,344
Nutritional & misc metab ds>17 w c	296	5,726	5,591	3,042	3,153
Angina pectoris	140	3,714	3,645	1,709	1,785
Cardiac arrhythmia & conduct ds w c	138	5,030	5,016	2,484	2,624
Septicemia > 17	416	8,945	9,219	5,069	5,296
Kidney & UTI > 17 w c	320	5,892	5,702	3,083	3,085
Percutaneous cardiac procedure	112	17,047	19,765	7,345	7,920
Circulatory ds w AMI & camp - alive	121	10,102	10,861	4,771	5,398
Hip & femur praced > 17 w c	210	12,626	12,739	6,451	6,740
Major small & large bowel praced w c	148	24,622	26,350	12,000	13,949
TIA & procedural occlusion	015	4,432	4,681	2,014	2,236
Circulatory disease exc AMI	124	9,886	10,934	4,275	4,690
Chest pain	143	3,653	3,730	1,517	1,516

are influenced by the individual patient's principal and secondary diagnoses.

Cost-related parameters (average hospital charge and average Medicare reimbursement) are presented by DRG (Table 7) since this is the basis upon which hospital payments are made. Although the actual differences from year to year are relatively small, a trend toward an increase in both charges and reimbursement was noted. The average hospital charge per discharge claim has increased from \$9,795 in 1994 to \$10,358 in 1996. The average Medicare reimbursement has increased by a similar proportion; from \$4,856 to \$5,274 per discharge claim during the same period.

Discussion

As the health care system changes and the science of performance measurement and quality improvement continues to emerge, the scope of PROs has evolved to include surveillance studies to monitor trends in health and health care for Medicare beneficiaries. The Medicare claims files, originally designed to compile administrative and payment information on beneficiaries, are a useful source of data from which to conduct surveillance on this population. Although three years may not be enough time over which to establish definitive trends in health and health care services, this report has provided a picture of the health status and health care for the Okla-

homa Medicare population hospitalized in the recent past.

From an epidemiologic standpoint, Medicare beneficiaries 65 years of age and over form an excellent representation of the general population of the same age group in Oklahoma. A comparison between Medicare recipients based on the enrollment files and the Census Bureau population estimates⁸ (data not presented here) demonstrates striking similarities in demographic makeup. In general, inferences made for Oklahoma Medicare beneficiaries can be applied to the general population of the same age in the state.

There is a discrepancy in the demographic makeup of the Medicare population between the enrollment files and the Census Bureau estimates in the population proportions of racial/ethnic minority groups (other than African-American). Lauderdale et al.⁹ in a recent review of the expanded racial and ethnic codes in the Medicare data files, explains the history of race coding in the HCFA system and the limitations of these codes. The heterogeneous racial/ethnic group referred to as "other" includes Hispanics, Asians, and Native Americans. Despite the effort initiated by HCFA in 1994 to use distinct codes for these minority groups and discourage the use of "other," our study shows that the population proportion of this group has increased slightly from 1.6% in 1994 to 2.0% in 1996 among Oklahoma Medicare enrollees 65 years of age and over and from 3.7% to 7.1% for those enrollees under 65 years of age. Inconsistency in the coding of race/ethnicity may not be the only explanation for the discrepancy between Census Bureau statistics and Medicare enrollment files for Native Americans. The proportion of Native Americans in Oklahoma aged 65 and over was estimated to be 5.4% in 1994 according to the Census Bureau.⁸ The proportion of Native Americans among Medicare beneficiaries based on enrollment files has remained around 0.5% over the last three years. This proportion would still be smaller than half of the Census Bureau estimate even under the extreme assumption that all of the Medicare recipients coded as "other" were Native American. It is possible that many Native Americans may not be aware of their right to enroll in the Medicare program along with their participation in services provided by the Indian Health Service, a Federal program exclusive to this population.

There has been a modest growth of 2.5% in the Oklahoma Medicare population since 1994. As mentioned before, there are distinct differences in the population of Medicare enrollees below the age of 65 as compared to those aged 65 years and over. The proportion of minority beneficiaries below the age of 65 is more than double the proportion of minorities in the aged 65 and over population of Medicare enrollees.

Beneficiaries enrolled in managed care continue to represent a relatively small proportion of the Oklahoma Medicare population. In 1995, enrollees in managed care made up 9.3% of the Medicare population nationally. California had the highest proportion of Medicare beneficiaries enrolled in managed care plans (33.9%) while Maine, Mississippi, South Dakota, and Puerto Rico had the lowest levels of managed care enrollment (0.1%).⁴ The proportion of Oklahoma Medicare beneficiaries enrolled in managed care was 3.3% in 1995 and has increased to 4.6% in 1996 (all ages included).

A number of the surveillance measures for fee-for-service Medicare recipients reported here show interesting trends. The in-hospital and 30-day mortality rates have declined from 1994 to 1996 for all age groups. In addition, the average length of stay has declined for all age groups and all principal diagnoses that we have reported. At the same time that length of stay and mortality rates have declined, discharge to the home setting for self-care has declined and admissions to skilled nursing facilities and home with health service care have increased. Over this same time frame, 30-day hospital readmission rates have remained relatively stable. Any evaluation of health care services that seeks to address the impact of quality improvement or utilization management strategies over time must take these trends into account.

Consistent with previous reports,^{10,11} heart disease remains the most common reason Oklahoma Medicare beneficiaries are admitted to the hospital. The combined diagnostic categories of heart disease accounted for nearly 27,000 hospitalizations of Medicare beneficiaries during 1996 followed next by the combined diagnostic categories of pneumonia and influenza which accounted for more than 10,000 admissions.

Quality Résumé,⁴ which was released while this report was being completed, provides an interesting snapshot of the health care services provided to Medicare beneficiaries nationwide during 1995. The HCFA surveillance report provides demographic characteristics of the Medicare

population and state-to-state comparisons for many principal diagnoses and procedures. State-specific data are not detailed in HCFA's report. Since our study was devoted to one state, it was possible to examine a wider array of clinical conditions, procedures, and diagnosis-related groups than profiled by HCFA. Although most of our 1995 surveillance measures are comparable to those reported by HCFA for Oklahoma, differences in the content of the data sets and variations in the methodology of analysis explain some minor discrepancies between the reports.

Conclusion

This report demonstrates that the Medicare enrollment files and discharge claims data sets (MedPRO and ISAT) represent a useful source of information from which epidemiologic surveillance can be performed. A statewide emphasis on the prevention and management of heart disease continues to be warranted based on the major impact on hospital utilization for the Medicare population by these conditions. The rates of in-hospital and 30-day mortality and the average length of stay continue to decline for all age groups in the Oklahoma Medicare population. These declines need to be taken into account in any evaluation performed of health care services that seeks to address the impact of quality improvement or utilization management strategies over time on the Medicare population.

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Nonmarital Births in Oklahoma 1975-1995

Janis E. Campbell, PhD; Sara R. DePersio, MD, MPH; Richard Larenz, MSPH

This report uses data from the Oklahoma State Department of Health to describe past trends and current patterns of nonmarital births in Oklahoma. Between 1975 and 1995, the percentage of unmarried women delivering a live birth in Oklahoma increased from 12% to 31%. Adult nonmarital births increased faster than teen nonmarital births, but teens had a higher percentage of nonmarital births. White rates increased faster than African-American and Native American rates, but African-Americans had a higher percentage of nonmarital births. Unmarried women who give birth were more likely to be poor and lack education; additionally, they were less likely to receive early prenatal care, more likely to have had low weight births, and more likely to have had an unintended pregnancy. Birth outcomes are poorer among unmarried women, but this may be due to poverty and education rather than marital status alone.

The rise in the number of unwed mothers has received considerable media and government attention in recent years.^{1,2} Over the last 50 years, Oklahoma's percentage of nonmarital births has risen from 3.4% in 1945 to 30.6% in 1995, an 800% increase. Nationally a similar trend was seen, with an increase from 4.6% in 1945 to 32.2% in 1995, a 600% increase.³ Using primarily birth certificate data, this article will discuss the rise in nonmarital births in Oklahoma from 1975

through 1995, concentrating on those groups with the highest increases, and analyzing the factors associated with nonmarital births.

A nonmarital birth involves a complex set of factors, including the social and economic context within which a woman lives. Assessing the motives of the parents themselves is difficult and often impossible, as the economic, demographic, and social reasons for nonmarital births are frequently unknown or poorly understood by parents and researchers alike. Additionally, many factors influence the proportion of births to unmarried women that have nothing to do with nonmarital births; factors such as the proportion of unmarried women in the population, abortion rates, and fertility rates within marriage have little to do with changes in nonmarital fertility, but effect overall rates.

There are several strategies currently being implemented which address the dramatic rise in proportion of nonmarital births, most notably, current welfare reform. These reforms aim at eliminating any perceived advantage in welfare benefits of bearing children outside of marriage by limiting payments to mothers of children born out-of-wedlock. The causal connection, however, between nonmarital childbearing and the welfare system is weak. According to a recent report to Congress, welfare is "not... largely responsible for recent increases in nonmarital childbearing."¹ However, current welfare reforms include incentive bonuses for states that decrease their out-of-wedlock births.

This report uses data from the Oklahoma State Department of Health (OSDH) to describe past

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trends and current patterns of nonmarital births in Oklahoma. The data examine the different subgroups of women who have made the greatest contribution to the changes seen in nonmarital births. The examination of patterns and trends of nonmarital births are important for understanding both the current fertility trends in Oklahoma and in providing data to consider in policy development.

Methods

This report uses data from the Oklahoma State Department of Health vital records on live births among Oklahoma residents between 1975 and 1995. This analysis only uses those records reporting marital status of the mother. In Oklahoma in 1995, 99.7% of birth certificates had the marital status of the mother; in 1975, 99.0% reported this information. Demographic and socioeconomic characteristics, such as maternal age, race, education, and number of previous births, as well as outcomes such as prenatal care entry, low birth weight, and pre-term births, are also presented.

The vital records data are supplemented with information from the Oklahoma Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is a population-based survey of Oklahoma women with a recent delivery. This ongoing project was initiated in 1987 through a cooperative agreement between the Centers for Disease Control and Prevention (CDC) and OSDH. A stratified, random sampling approach is used to select approximately 200 new mothers each month from the state's live birth registry. Data for this report reflect live births occurring between April 1988 and March 1995; the overall response rate was 71% for this period. Analysis weights were applied to adjust for selection probability and non-response. The total number of women in the sample was 11,750. All data represent state estimates.

It is important to note that these data represent the number and proportion of nonmarital births; they do not show nonmarital fertility rates. That is, they do not show increases in the proportion of women having a nonmarital birth, but the proportion of births that are nonmarital among all births. Furthermore, the percentage of the population that is unmarried in the United States has increased dramatically during this period, thus increasing the number of women at risk for nonmarital births.¹ This report does not include fertility rates, because the population of unmarried women in Oklahoma is not known with accuracy. As mentioned previously, the proportion of nonmarital births can be influenced by factors

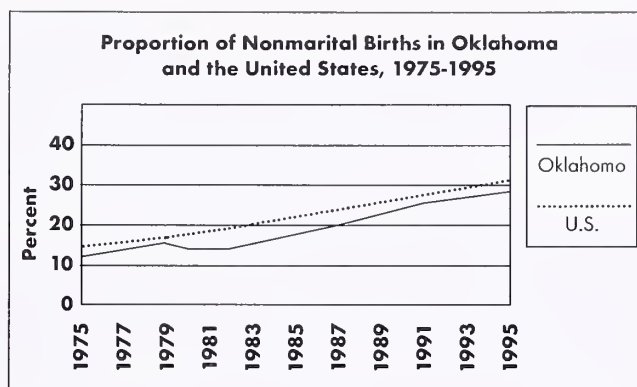


Figure 1.

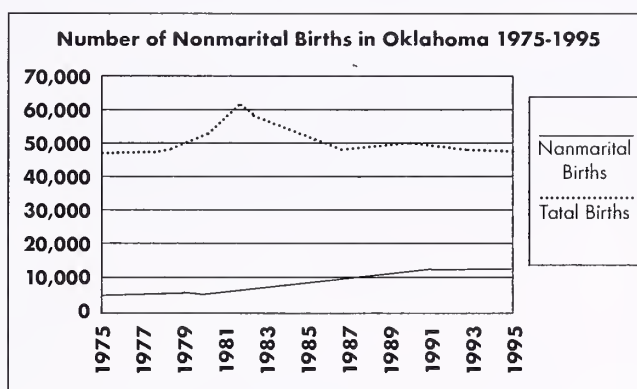


Figure 2.

such as decreases in marital fertility, increases in the number and proportion of unmarried women, and abortion rates. Additionally, the data available from vital records represent only live births; they do not include those pregnancies that end in induced or spontaneous abortion, nor do they include those that end in fetal death.

Results

Socio-demographics.—Between 1975 and 1995, the percentage of unmarried women delivering a live birth in Oklahoma increased 158%, from 12% to 31% (Fig. 1). Nationally, unmarried births increased from 14% to 32% in 1995.³ During that period, the number of nonmarital births in Oklahoma rose from 5,075 to 13,856, an almost three-fold increase (Fig. 2).⁴ By 1995, almost one-third of births in Oklahoma and the United States were to unmarried women. Nonmarital births are a serious issue in Oklahoma and the United States, but this increase has not been evenly distributed among all subgroups of the population.

Historically, nonmarital births have been seen as a teen issue. In 1995, Oklahoma teens (less than 20 years of age) giving birth were four times more

likely to be unmarried than adults (age 20 and older) giving birth. A significantly higher percentage of teens have nonmarital births as compared to non-teens—76% of women ages 15 to 17 compared to only 14.1% of women ages 30

to 34 (Table 1). However, it is important to note that the largest number (8,814) of births in 1995 to unmarried women were to women over the age of 20.

Despite the fact that the highest percentage of nonmarital births were to teens, the largest increase in nonmarital births was to non-teens (Fig. 3). The largest increase in the number of births to unmarried Oklahoma women between 1975 and 1995 was among women ages 30 to 34 (from 184 to 1,099), a six-fold increase (Table 1). During this same period, births to unmarried women ages 25 to 29 increased 4.6-fold, while births to unmarried women ages 15 to 17 increased only 1.4 fold (Table 1). In fact, births to unmarried women ages 10 to 14 and 15 to 17 showed the smallest increase of all age groups. In short, most of the increase (75%) in the number of nonmarital births in Oklahoma from 1975 to 1995 was among women over the age of 20. Teens may show high rates of nonmarital birth, but non-teens show the largest increases in numbers and percentage of nonmarital births.

A recent study suggests that most of the increase in older women with nonmarital births was from women who had their first child as a teen.⁵ Oklahoma PRAMS estimates that, among women age 25 or older at their current delivery, those who had their first child before the age of 18 were 3.7 times more likely to report being single at the birth of their current child than women who had their first child at age 20 or older. PRAMS data estimates suggest 63% of all births to single women between 1988 and 1995 in Oklahoma were to those who first gave birth as teens. To summarize, although the highest increases in nonmarital births were to non-teens, many of these non-teens were teens when they had their first child. Teen pregnancy and births, thus, are still an important aspect of nonmarital births.

If, indeed, the rate of nonmarital births is increasing due to older women, it would be expected that the increase would also be among women with previous births. Overall the largest increase was among women with one or more previous births (Table 2).

Table 1. Nonmarital Births in Oklahoma 1975-1995

Mother's Age	1975		1995		Rate Increase From 1975
	Nonmarital Births	Percent of Total Births	Nonmarital Births	Percent of Total Births	
10-14	138	77.1%	149	94.3%	1.08
15-17	1,484	38.2%	2,096	76.0%	1.41
18-19	1,261	21.0%	2,753	57.6%	2.18
20-24	1,449	8.8%	5,151	35.4%	3.55
25-29	446	4.0%	2,037	17.4%	4.57
30-34	184	4.9%	1,099	14.1%	5.97
35-39	88	8.0%	446	15.3%	5.07
40+	22	9.0%	81	15.8%	3.68
Unknown	3		44		
Total	5,075	11.9%	13,856	30.6%	2.73

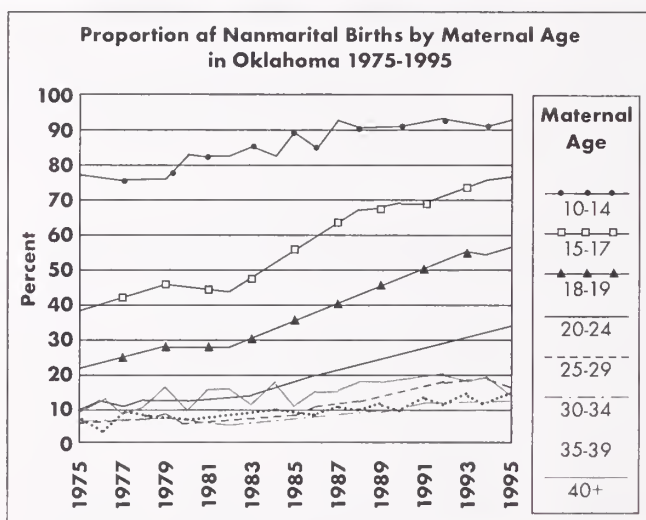


Figure 3.

Table 2. Nonmarital Births by Previous Number of Births in Oklahoma 1975-1995

Number of Previous Births	1975		1995		Rate Increase From 1975
	Nonmarital Births	Percent of Total Births	Nonmarital Births	Percent of Total Births	
0	3,064	16.7%	7,396	38.4%	2.30
1	888	6.3%	3,088	22.8%	3.61
2	422	7.3%	1,681	24.4%	3.36
3	206	9.2%	756	30.5%	3.31
4+	209	12.2%	489	33.4%	2.74
Unknown	286		446		
Total	5,075		13,856		

Women with no previous births show the lowest increase in proportion. Still, half of the increase in the number of nonmarital births between 1975 and 1995 was among women with no previous births.

When age and number of previous births are analyzed together, the highest increases between 1975 and 1995 were seen among women age 30 or older with no previous births (Table 3). There was a ten-fold increase in nonmarital births among women age 30 or older with no previous births. Among women age 30 or older with at least one previous birth, there was a five-fold increase. The increase in nonmarital births is high among women who are older and have had at least one previous birth, but the highest increase of all was among women age 30 or older who had not had a previous birth. Nonmarital first births among women 30 and older was virtually nonexistent in 1975; thus, even though it was still relatively rare in 1995, the small numbers show a dramatic increase.

Another historically important difference in the percentage of births that are nonmarital is among racial groups. In 1995, African-American women had the highest percentage (69.2%) of nonmarital births, with white women at 24.5% and Native American women at 44.2% (Fig. 4). Although African-American women had the highest percentage of nonmarital births in 1995, the greatest increase in nonmarital births from 1975 to 1995 was among white and Native American women, with 3.7-fold and 2.8-fold increases, respectively. Conversely, African-American women show only a 1.6-fold increase (12.4%) in nonmarital births. Moreover, white women account for 73% of the total increase in nonmarital births between 1975 and 1995.

When age and race are analyzed together, some even more interesting trends emerge. As discussed previously, there has been a larger increase in the number of unmarried births among adults than among teens. Among adults there was a five-fold increase between 1975 and 1995; the majority of this increase was among whites. White adult women had a 5.8-fold increase in the percentage of unmarried births, while the percentage of African-American and Native American adult women doubled during the same period.

As for teens, although there was a decrease in the total number of teen births between 1975 and 1995 (from 10,070 to 7,706), the number of *unmarried* teen births almost doubled (from 2,886

Table 3. Nonmarital Births by Mother's Age and Parity in Oklahoma 1975-1995

Mother's Age	1975				1995				Rate Increase From 1975	
	Nonmarital Births		Percent of Total Births		Nonmarital Births		Percent of Total Births			
	Parity		Parity		Parity		Parity			
	0	1+	0	1+	0	1+	0	1+	0	1+
10-17	1,423	130	92%	8%	2,005	198	91%	9%	1.41	1.52
18-19	896	315	74%	26%	2,005	636	76%	24%	2.29	2.02
Teens	2,319	445	84%	16%	4,060	834	83%	17%	1.75	1.87
20-29	708	1,050	40%	60%	2,956	3,975	43%	57%	4.18	3.79
30-39	35	213	14%	86%	344	1,126	23%	77%	9.83	5.29
40-50	0	16	0%	100%	13	61	18%	82%		3.81
30+	35	229	13%	87%	357	1,187	23%	77%	10.20	5.18
Unknown	2	1			23	18				
Total	3,062	1,724			7,373	5,996			2.41	3.48

Proportion of Nonmarital Births by Maternal Race in Oklahoma 1975-1995

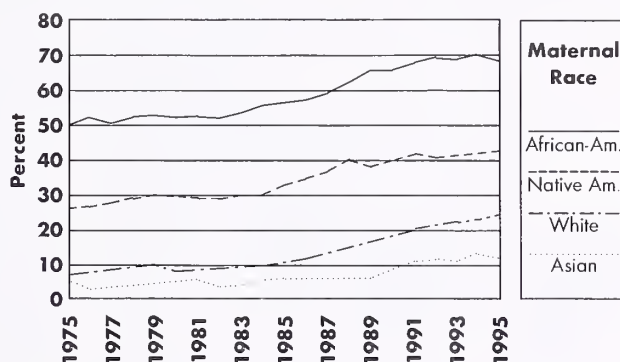


Figure 4.

to 4,998). This increase in unmarried teen births has not been evenly distributed among various racial groups. In fact, the number of African-American unmarried teen births has decreased since 1975, from 1,147 to 1,096 in 1995. Among white teens, there was an increase from 1,382 to 3,154, a 2.2-fold increase. Among Native American teens, there was an increase from 342 to 708, a 2.1-fold increase. In sum, the rate of nonmarital births to white and Native American women increased substantially faster than among African-American women; this was especially true among teens.

Besides age, parity, and race, poverty is an important factor often associated with nonmarital birth. Oklahoma PRAMS indicated that more than half, or 53.1%, of women living below the Federal Poverty Level (FPL) were not married at the time of their child's delivery, compared to only 5.4% of women living above 185% of FPL (Fig. 5).⁶ In other words, women living below the Federal Poverty Level were 10.5 times more likely to be single at delivery than women living at 185% above the poverty level. Poverty, however, is also

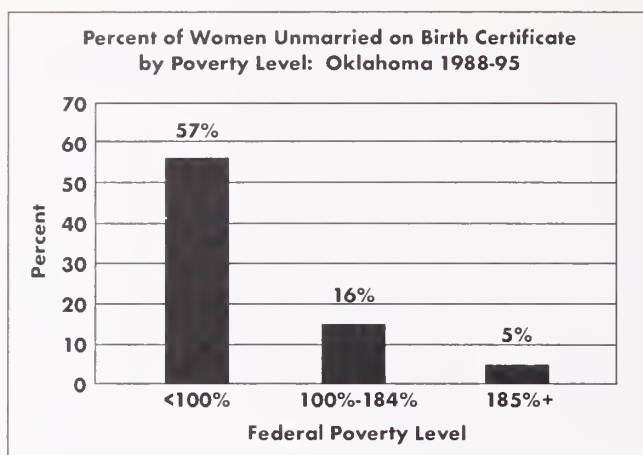


Figure 5.

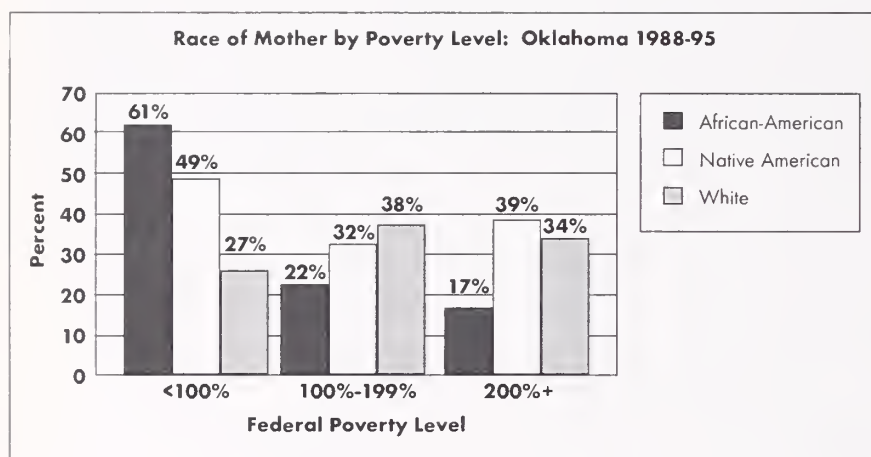


Figure 6.

associated with age and race. African-American women were 2.2 times more likely and Native American women 1.8 times more likely to live in poverty than were white women (Fig. 6). Moreover, teens were 3.2 times more likely to live in poverty than adults.

Finally, education, which is associated with poverty, age and race, is also associated with nonmarital births. In 1995 women with less than a high school education were 3 times more likely to be unmarried (43% unmarried v. 15% married); in contrast, women with at least one year of college education were 2.8 times more likely to be married (17% unmarried v. 48% married). After omitting women less than 19 years of age (those who have not yet had a chance to graduate high school), women with less than a high school education were 2.5 times more likely to be unmarried than married; women with at least one year of college education were 2.2 times more likely to be married than unmarried.

Looking at all of these variables together,

logistic regression analysis of PRAMS data shows that women living in poverty, with less than 12 years of education, who are African-American or Native American, less than 20 years of age, and with no previous births, had a significantly increased risk of having a nonmarital birth in Oklahoma between 1988 and 1995. Taking all of these factors into account, women at 100% of the FPL are three times more likely to have a nonmarital birth than women at 200% of FPL. This analysis was done to describe the extent, direction, and strength of the relationship among several independent variables and a dichotomous variable—marital status at birth. Interactions have not been considered in this analysis.

Outcomes.—As discussed previously, women who live in poverty, have low educational attainment, or are young, were more likely to be unmarried at the birth of their child. Because poverty, race, education, and age are characteristics which exist before marital status, rates of prenatal care and birth outcomes associated with marital status reflect all of these factors, rather than marriage alone.

In 1995, 63% of unmarried mothers received prenatal care in their first trimester compared to 84% of married mothers (Table 4). Again, compared to married women, unmarried women were twice as likely to receive their first prenatal care in their second trimester, 3.3 times more likely to receive their first care in the third trimester, and 4.2 times more likely to receive no prenatal care.

Given all the socio-demographic factors associated with nonmarital births and the increased likelihood of late prenatal care, it is not surprising that unmarried mothers are at increased risk of having low birth weight babies and pre-term deliveries. In 1995 unmarried women were 1.6 times more likely to give birth to a baby that weighed less than 5 lbs 8 ozs (low birth weight). Additionally, unmarried women were 1.4 times more likely to give birth prematurely than were married women (14.1% v. 10.2%).

Discussion

It is important to note that the vast majority of pregnancies to unmarried women were unintended at conception. Oklahoma PRAMS data indicated that, among unmarried women, 74% of those pregnancies resulting in live births were

unintended at conception. One in five (21%) pregnancies were unwanted at the time of conception or at any time in the future, while 53% were mistimed. Additionally, in Oklahoma, among women delivering a live baby, 33% of women single at the conception of their pregnancy were married at the delivery; thus, 67% remained single.

To summarize the data presented here, adult nonmarital births are increasing faster than teen nonmarital births, but teens have a higher percentage of nonmarital births. White rates are increasing faster than African-American and Native American rates, but African-Americans have a higher percentage of nonmarital births. Unmarried women who give birth are more likely to be poor and have less education. Unmarried women are less likely to receive early prenatal care, more likely to have low birth weight babies and pre-term deliveries. However, as discussed before, these poor birth outcomes among unmarried women may be due to socioeconomic differences of unmarried women rather than marital status alone.

Although these data described which groups contribute to the changes seen in nonmarital births between 1975 and 1995, the economic and social realities of these births are complex. The causes and consequences of nonmarital births are important and wide-ranging. However, the social and economic situations of the mothers and fathers of these children are not well known. These factors, of course, effect the rates tremendously.

A recent governmental committee has attempted to explain the causes for the increase and socioeconomic differences in nonmarital births.¹ Explanations for the increase include the greater number of unmarried women which increases the number of women at risk of nonmarital birth and declining fertility rates among married women. Together, these factors substantially increase the

percentage of births to unmarried women. Additionally, factors such as increased sexual activity, decreased likelihood of marriage after a premarital pregnancy, decreased numbers of adoptions, or decreased number of abortions all influence nonmarital birth rates. Finally, this increase may be influenced by the changing status and earning power of women, welfare and other public assistance which discourage marriage through a lack of support for poor married families, men's lack of employment and earning potential, and also cultural shifts and changing family values. However, it remains to be seen if these are *causes* or *consequences* of nonmarital fertility, and the policy implications of all of these factors are far reaching. Nonmarital fertility is a complicated issue, one that requires an understanding of social, economic, and political factors before changes in the trends seen in this report can be accomplished.

References

1. US Department of Health and Human Services. *Report to Congress on Out-of-Wedlock Childbearing*. DHHS Pub. No. (PHS) 95-1257. (Hyattsville, MD: National Center for Health Statistics, 1995).
2. *US News and World Report*. June 25, 1995. "Unwed Moms: It's Not Just a Teen Thing."
3. National Center for Health Statistics. *Advance Report of Final Statistics, 1995*. (Hyattsville, MD: National Center for Health Statistics, 1997).
4. In 1975 there were 43,132 total births. In 1995 there were 45,365 total births.
5. Foster MD, Hoffman SD. Nonmarital childbearing in the 1980s: Assessing the importance of women 25 and older. *Family Planning Perspectives* 1996;28:3:117-119.
6. The 1997 Federal Poverty Level for a family of four is \$16,050 per year.

The Authors

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**Table 4. Birth Outcomes by Marital Status
Oklahoma 1995**

Birth Outcome	Unmarried	Married
Prenatal Care		
First Trimester	63.0%	84.1%
Second Trimester	27.1%	13.0%
Third Trimester	7.3%	2.2%
No Care	2.6%	0.6%
Low Birth Weight	9.5%	5.8%
Pre-term	14.1%	10.2%

A myriad of services are available for older Oklahomans and their caregivers. One can learn more with just one phone call.

The Place to Start... Senior Info-Line

Edward Munnell, MD, Commissioner
Oklahoma Department of Human Service

Can a misunderstanding between a physician and a patient's family member lead to unnecessary physician review? It can and it does, especially when emotions are highly charged because the patient in question is *elderly, frail, and declining in capabilities*. I recently sat on a hearing committee that originated when a family member became upset that the physician "wouldn't get hospice services for the mother." Mother, however, was not terminally ill. The family member, who lived out-of-state, was at her wit's end trying to find ways to assist her mother.

Frankly, I was appalled that the physician

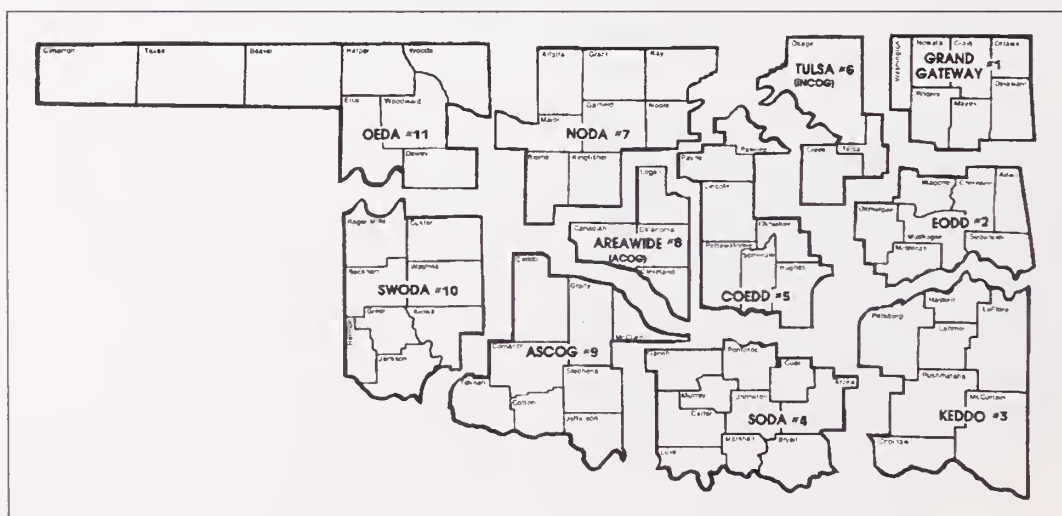


Figure 1. Map of Oklahoma's Area Agencies on Aging

did not seem to be aware of the resource network available to assist geriatric patients and their caregivers. I think every physician in the state should put this information in a resource folder to avoid dilemmas such as the one described above.

A statewide toll-free number, 1-800-211-2116, Senior Info-Line, is the number to call.

This phone number is answered by the information and assistance specialists of the Area Agencies on Aging. As you may be aware, some 11 Area Agencies on Aging are funded by the Older American's Act, Title III, to serve all seniors 60 and older throughout Oklahoma. Calls are routed electronically directly to the Area Agency located closest to the caller. No fee is charged for the information and assistance services. If additional services are needed, referral is made in accordance with the caller's wishes and resources. Callers with limited finances are directed to programs that can accommodate their situations.

For the physicians and their staff members who want to go beyond giving out a telephone number, let me suggest that you call 1-800-211-2116 and ask for a copy of your Area Agency's resource directory. A wealth of information is found in the "Senior Survival Kit" published in my region, the Oklahoma City

area, by the Areawide Aging Agency. A similar booklet exists in your area, and it contains information about services available in your area. From "assistance with chores" to "transportation," these booklets are well worth the \$5 or so donation you will be asked to consider making.

Further, I would encourage you to call and get acquainted with your local Area Agency on Aging staff. Just as it is impossible for the physician to personally have knowledge of every single clinical development that may affect his or her patients, it is also impossible for the physician to know about every single seniors program or service—along with how it's accessed, paid for, or regulated. The key is to be aware of a credible resource—and I direct you to the Area Agencies on Aging.

The Author

Formerly a thoracic-cardiovascular surgeon in Oklahoma City and a clinical professor of surgery at the University of Oklahoma College of Medicine, Dr. Munnell has been a member of the Commission of the Oklahoma Department of Human Services for over two years.

Direct correspondence to Edward R. Munnell, MD, Commissioner, Oklahoma Department of Human Services, 312 Northeast 28th Street, Oklahoma City, OK 73105.

A statewide toll-free number, 1-800-211-2116, Senior Info-Line, is the number to call.

Invitation from the Presidents

Dear OSMA Member:

The 92nd Annual Meeting of the Oklahoma State Medical Association (OSMA) is scheduled for April 23-26, 1998, at the Marriott on Northwest Expressway in Oklahoma City. We invite you to be a part of this timely meeting which will focus on the theme "**Oklahoma Medicine at the Crossroads.**" Change is all around us — in and outside the health care delivery system. Our challenge today is to recognize change as an opportunity. We need to anticipate change and make it work for us instead of against us.



As you review this registration packet, I know you will find several items of interest to you and your practice. Each day offers a variety of OSMA business meetings, medical education sessions, and social functions. Our meeting offers the following objectives: 1) To give healthcare professionals the opportunity to network and exchange ideas; 2) To update attendees on the trends, perspectives, and challenges of health care reform in Oklahoma, and 3) To demonstrate the importance of personal involvement in the political process in regard to issues facing Oklahoma physicians.

Highlights of the meeting include: On Thursday, Conomikes will be presenting an educational seminar geared toward young physicians and those who are contemplating a change in their practice. A reception for the Young Physicians Section will follow that evening. On Friday, Nancy W. Dickey, MD, President-Elect of the American Medical Association (AMA), will be featured as the keynote speaker for the OSMA/OSMAA luncheon. Friday evening offers an "Opening Night Welcome Reception" for all annual meeting attendees. Saturday will be devoted to several CME courses and programs provided by the OSMA and a number of specialty societies. Some 30 exhibitors will be on site to display their products and services. These vendors are an integral part of our meeting and it is an excellent way to find out about resources that can assist your practice. Saturday night is the traditional OSMA/OSMAA Presidents' Inaugural Dinner. I hope you will make plans to attend and support the incoming OSMA President, Mary Anne McCaffree, MD, and the incoming OSMAA President, Mrs. Robert N. Cooke.

It has been a pleasure serving as your elected president for 1997-1998, and I invite you to join your colleagues by registering for the 1998 OSMA Annual Meeting.

A handwritten signature in dark ink that reads "David M. Selby, M.D.".

David M. Selby, MD, OSMA President



Dear OSMA Alliance Member:

You are invited to attend the Annual Meeting of the OSMA Alliance in Oklahoma City on April 23-26, 1998. Jean Wankum, AMA Legislative Committee Chair, and Jeanny Kalaycioglu, President-Elect of the Southern Medical Association Auxiliary, will be our honored guests.

On Friday at 9:00 am, the board will convene for a pre-convention meeting. The luncheon keynote speaker on Friday will be Nancy W. Dickey, MD, President-Elect of the AMA. As requested by our membership, we will again hold a "High Tea" in the home of Sylvia Shirley, 1504 Glenwood from 3:30-5:00 pm on Friday. Saturday morning at 7:30 there will be a breakfast for all the past state presidents and a breakfast meeting for the county presidents and county presidents-elect to visit personally and share ideas with Doris Edge and Diane Cooke. At 9:00 am, the OSMAA House of

Delegates will convene. On Saturday afternoon, Diane Cooke will be presiding over the post-convention board meeting. I hope you will plan to attend the Inaugural Dinner on Saturday evening to support the new Alliance president, Diane Cooke, and the new OSMA president, Mary Anne McCaffree, MD.

Look for further details in the Alliance newsletter and I hope to see you at the Oklahoma City Marriott.

A handwritten signature in dark ink that reads "Doris Edge".

Doris Edge, OSMAA President

92nd OSMA Annual Meeting

Tentative Meeting Schedule

Unless otherwise indicated, all the following events will take place at the Oklahoma City Marriott.

Thursday, April 23, 1998

- 10:30 am OSMA Executive Committee Meeting¹
- Noon OSMA Executive Committee/Board Luncheon¹
- 1:30 pm OSMA Board of Trustees Meeting¹
- 1:30 pm OSMA Registration
- 2:00 pm "Making the Right Choices" — A Practice Management Workshop
- 5:00 pm Federation Coordination Team — Open Forum with Jay A. Gregory, MD
- 5:30 pm Organized Medical Staff Section Caucus
- 6:00 pm Young Physicians Section Reception

Friday, April 24, 1998

- 6:00 am Hospitality
- 7:00 am OSMA/OSMAA Registration
- 7:30 am Tulsa County Medical Society Caucus & Breakfast
- 7:30 am Oklahoma County Medical Society Caucus & Breakfast
- 7:30 am Rural County Medical Societies Caucus & Breakfast
- 7:30 am Credentialing for House of Delegates
- 8:00 am OSMA Exhibits & AMA-ERF Silent Auction Open
- 8:30 am OSMA House of Delegates Opening Session
- 10:00 am Alliance Pre-Convention Board Meeting
- 10:00 am House of Delegates—Break
- 10:30 am OSMA House of Delegates Opening Session
- Resumes
- Noon OSMA/Alliance Luncheon — Nancy W. Dickey, MD, AMA President-Elect
- 1:15 pm OSMA Candidates' Forum
- 2:00 pm Oklahoma Surgical Association Scientific Program
- 2:30 pm OSMA Reference Committee Meetings
- 3:30 pm Alliance High Tea²
- 5:00 pm OSMA Medical Student Section Meeting
- 5:30 pm OSMA/OSMAA Opening Night "Welcome" Reception
- 6:00 pm Oklahoma Surgical Association Party
- 6:00 pm Medical Alumni Association, University of Oklahoma Reception
- 7:00 pm Medical Alumni Association, University of Oklahoma Awards Dinner
- 9:00 pm Medical Alumni Association, University of Oklahoma Class Reunions

Saturday, April 25, 1998

- 6:00 am Hospitality
- 7:00 am OSMA/OSMAA Registration
- 7:00 am County Society Presidents, Specialty Society Presidents, and OSMA Past Presidents Breakfast

Saturday, April 25, 1998 (cont'd)

- 7:00 am OSMA Breakfast Forum
- 7:30 am Alliance State Past Presidents Breakfast
- 7:30 am Alliance County Society Presidents and County Society Presidents-Elect Breakfast
- 8:00 am Visit OSMA Exhibits & AMA-ERF Silent Auction
- 8:30 am Oklahoma Surgical Association Council Meeting
- 8:30 am OSMA Joint Sponsored CME Sessions — 3 hours, Category 1
- 9:00 am Alliance House of Delegates
- 9:00 am Oklahoma Society of Anesthesiologists Lectures & Meeting
- 10:00 am Medical Alumni Association, University of Oklahoma, Board Meeting
- 11:00 am Physical Medicine and Rehabilitation Society Luncheon & Meeting
- 11:00 am Oklahoma State Orthopedic Society Luncheon & Meeting
- 11:45 am OBMLS Luncheon - Open Forum
- Noon OSMA Exhibits Close
- Noon Oklahoma Surgical Association Luncheon & Meeting
- Noon OMPAC Board Luncheon Meeting
- 1:00 pm OMPAC Annual Membership Meeting
- 1:00 pm OSMA Sponsored Seminar — "Understanding Medical Savings Accounts"
- 2:00 pm OSMA Sponsored Seminar — "Communicating with Your Lawmakers"
- 2:00 pm PLICO Loss Prevention Seminar, Category 1
- 2:30 pm Alliance Post Convention Board Meeting
- 3:00 pm OSMA Council on Governmental Activities Meeting
- 6:00 pm OSMA/OSMAA Presidents Reception³
- 7:00 pm OSMA/OSMAA Presidents Inaugural Banquet³

Sunday, April 26, 1998

- 6:00 am Hospitality
- 6:30 am Credentialing for House of Delegates
- 7:00 am OSMA Registration
- 7:00 am Oklahoma County Medical Society Caucus & Breakfast
- 7:00 am Rural County Medical Societies Caucus & Breakfast
- 7:00 am Tulsa County Medical Society Caucus & Breakfast
- 7:30 am Voting Room Opens
- 9:00 am OSMA House of Delegates Closing Session
- Noon New OSMA Officers, Trustees, and AMA Delegates Lunch*
- 1:30 pm AMA Delegation Caucus*
- 1:30 pm PLICO Forum*

**Beginning time subject to the ending of the House of Delegates Closing Session.*

¹*Location — OSMA Headquarters, 601 W I-44 Service Rd*

²*Location — Home of Sylvia Shirley, 1504 Glenwood*

³*Location — Cowboy Hall of Fame, 1700 NE 63rd Street*

92nd OSMA Annual Meeting

+ Target Audience

The OSMA Annual Meeting is designed primarily for Oklahoma physicians concerned with health care issues that affect the practice of medicine. Clinic managers, medical students, residents, and other health care professionals will also benefit from many of the activities during the course of the meeting. Also, the University of Oklahoma Medical Alumni are welcome to attend any of the general events.

+ Business Meetings

The Oklahoma State Medical Association House of Delegates, the policy-making body of the association, will meet on Friday, April 24, and Sunday, April 26, during the Annual Meeting. The House is made up of delegates from county medical societies and elected leaders. All OSMA members are invited and encouraged to participate in discussion of OSMA policies. *However, only delegates, or alternates seated as delegates, may vote in the house.* Grassroots resolutions have gone from the OSMA House to the AMA and on to Washington, DC, to shape national public policy.



Reference Committee meetings will convene Friday afternoon, April 24. Each committee is comprised of a small group of delegates and the meetings are an open forum to discuss the current issues brought before the House of Delegates. Any OSMA member may participate by testifying at these committee meetings. The committee then makes recommendations to

the House regarding the business referred to it. Registrants are encouraged to attend the committee meetings and the House sessions to see firsthand how OSMA policies are developed.

+ CME Hours

Three (3.0) hours of Category 1 CME credit will be offered during the Annual Meeting. Robert A. Wild, MD, Professor of Ob/Gyn, OU College of Medicine, will speak on "Preventative Health Measures: What works?" Marie A. Bernard, MD, Professor of General Internal Medicine, OU College of Medicine, will give a "Geriatrics Update." Marilyn I. Steele, MD, Associate Professor of Pediatrics, OU College of Medicine, will speak on "Alternative Health Measures: What are your patients taking (and not telling you about)?" This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Irwin Brown Office of Continuing Medical Education and the Oklahoma State Medical Association. The Irwin Brown Office of Continuing Medical Education is accredited by the ACCME to provide continuing medical education for physicians.

*Physician
Recognition
Award*



+ PLICO Program

This year's program will feature a discussion of the most common types of lawsuits filed against physicians alleging medical malpractice. Following a short explanation of each case type, there will be some tips on how to avoid such situations or how to be more defensible if actually involved in one. Ed Kelsay, Attorney at Law, will speak.

+ "Understanding Medical Savings Accounts" Seminar

This seminar will outline and summarize the PLICO Health Medical Savings Account program and its tax benefits to participants. The Health Insurance Portability and Accountability Act passed and signed into law in 1996, became effective January 1, 1997. A portion of this act allows tax deductible contributions and tax deferred growth in a non-qualified vehicle called a Medical Savings Account. Also available are tax-free benefits defined as qualified expenses which can be utilized from this program. Prospectus information on the Bear Stearns Investment plans will be provided.

+ "Communicating with Your Lawmakers" Seminar

OSMA Chief Lobbyist, Lynne White, will present a seminar on effectively communicating with your legislators from the grassroots lobbying perspective, including letter-writing and phone campaigns, on a year-round basis.

92nd OSMA Annual Meeting

+ Specialty Society Meetings

The following specialty societies will be holding meetings in conjunction with the OSMA Annual Meeting: The **Oklahoma Surgical Association**, the **Oklahoma Society of Anesthesiologists**, the **Physical Medicine and Rehabilitation Society**, and the **Oklahoma State Orthopaedic Society**. Contact your specialty society for further specifics on the individual programs.

+ Social Events

"Opening Night Welcome" Reception — On Friday evening there will be a "Welcome" reception hosted by the OSMA and the OSMA Alliance which will be open to all annual meeting attendees.

Presidents' Inaugural Reception & Banquet — The Cowboy Hall of Fame will be the location of this year's inaugural reception and banquet. The evening will begin with a reception honoring the outgoing and incoming presidents of the OSMA and the OSMA Alliance. Join us for a wonderful dinner and the joint installation of Mary Anne McCaffree, MD as OSMA President and Mrs. Robert M. Cooke as OSMA Alliance President.



+ Exhibitors/Sponsors

The exhibitors and sponsors play a vital role contributing to the overall success of the Annual Meeting. Through their generous financial support, the OSMA is able to provide attendees with quality educational programs and enjoyable social functions. Make plans in your annual meeting schedule to visit with the exhibitors on Friday, April 24, 1998, between 8:00 am and 5:00 pm and Saturday, April 25, 1998, between 8:00 am and Noon. This preliminary listing includes only the exhibitors and/or sponsors registered at press time. *Indicates OSMA Preferred Vendor.

Administrative Service Corporation
Alternative Living Services – Sterling House
Astra Merck, Inc.
Autoflex*
C.L. Frates and Company*
Computerized Medical Records
CSI Medical Systems
Electronic Dictation of Oklahoma City, Inc.
Good Shepherd Hospice
Harrison Peck Associates, PC*
HealthChoice
Integris Sleep Disorders Center of Oklahoma
Knoll Pharmaceutical
LDS Communications*
Medicare Services (Regional Office)
Merck Human Health
MetLife
Midwest Regional Medical Center
New Hope Hospice
Oklahoma Army National Guard

Physician Manpower Training Commission (PMTC)
PLICO*
PrimeCare of Oklahoma
Radiology Group, Inc./Spine Diagnostic Group
Saints Provider Network
Southwestern Stationery and Bank Supply, Inc.
Specialty Billing Services
Sprint PCS
TAP Pharmaceuticals
TaxResources, Inc.*
Travel the Continents (TRAVCON)*
U.S. Air Force Reserve
VoiceStream Wireless
WPS, Inc.

OSMA & OMPAC will also have booths available for general information and to answer any questions you may have.

+ AMA-ERF Silent Auction

Make sure and visit the OSMA Alliance booths/tables to place your bids on wonderful and unique items. Your donation will benefit the American Medical Association Education & Research Foundation (AMA-ERF). The auction will open on Friday morning and close at 4:00 pm on Saturday.



+ Prizes!

Watch for the prize drawing entry card in the Annual Meeting program and deposit it in the specially marked box in the exhibit hall to win prizes. The recipients' names will be drawn from all entries and winners will be announced at the Closing Session of the House of Delegates on Sunday.

*The OSMA thanks the exhibitors and sponsors who have demonstrated their
their support of Oklahoma physicians by participating in the
1998 OSMA/OSMAA Annual Meetings.*

EXHIBITORS

Administration Service Corporation
Alternative Living Services - Sterling House
Astra Merck, Inc.
Autoflex*
C.L. Frates and Company*
Computerized Medical Records
CSI Medical Systems
Electronic Dictation of Oklahoma City, Inc.
Good Shepherd Hospice
HealthChoice
Integrus Sleep Disorders Center of Oklahoma
Knoll Pharmaceutical
Medicare Services -- Oklahoma
Merck Human Health
MetLife

Midwest Regional Medical Center
New Hope Hospice
Oklahoma Army National Guard
OMPAC
OSMA General Information
PrimeCare of Oklahoma
Radiology Group, Inc./Spine Diagnostic Group
Saints Provider Network
Specialty Billing Services
Sprint PCS
TAP Pharmaceuticals
U.S. Air Force Reserve
VoiceStream Wireless
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SPONSORS

Astra Merck, Inc.
Seminar Speaker Honorarium & Expenses (Member Services/YPS Seminar)

Harrison Peck Associates, PC*
House of Delegates Opening Session Refreshments

Integrus Sleep Disorders Center of Oklahoma
Young Physicians Reception

LDS Communications*
Alliance House of Delegates Refreshments

PLICO*
Hospitality (All day-Friday)

Public Strategies, Inc.
The Opening Night "Route 66" Reception

Radiology Group, Inc./Spine Diagnostic Group
Annual Meeting Program Printing

Southwestern Stationery and Bank Supply, Inc.
Wine on Tables during Inaugural Dinner

Specialty Billing Services
Young Physicians Section Reception
Hospitality (All day-Saturday)

TaxResources, Inc*
Country and Specialty Society Presidents & OSMA Past Presidents Breakfast

Travel the Continents (TRAVCON)
OSMA Breakfast Forum (Saturday)

* Indicates OSMA Preferred Vendor

Thanks to 1998 OMPAC Members

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Robert H. Phillips, MD
John Pittman, MD
James R. Priest, MD

Jeffrey Reed, MD
Robert L. Remondino, MD
Mrs. Mary Robideaux
Howard Roemer, MD
John R. Rogers, MD
A. W. Rousseau, MD
Mrs. Linda Ruefer
Joseph Ruffin, MD
David S. Russell, MD
E. N. Scott Samara, MD
Mrs. Leslie Samara
S. Sandy Sanbar, MD
Karl F. Sauer, MD
James Schnabel, MD
William Schnitz, MD
Brook D. Scott, MD
Kenneth R. Setter, MD
Thurman Shuller, MD
Joseph W. Stafford, MD
Michael Steelman, MD
C. Robert Steves, MD
Jeffrey Stewart, MD
Bruce Stoesser, MD
Mrs. Jan Storm
Phillip Strateimer, MD
John Stuekmy, MD
J. Pat Sullivan, MD
Edward L. Taylor, MD
James R. Taylor, MD
Jack T. Terry, MD
David Thomas, MD
Thomas K. Tkach, MD
John F. Tompkins II, MD
James A. Totoro, MD
J. Keith Troop, MD
Bruce VanHorn, MD
John E. Ward, MD
Mrs. Julia Watson
William S. Watson, MD
Kent H. Webb, MD
Roger E. Wehrs, MD
Richard W. Welch, MD
James H. Wells, MD
Mrs. Susan Wendelken
Mrs. Nora White
Gregory P. Williams, MD
Keith O. Wilson, MD
H. Jackson Woodward, MD
Neil W. Woodward Jr., MD
John A. Yeabower, Jr., MD
Stephen Yeich, MD
Ervin Yen, MD

Mary Anne McCaffree Becomes First Woman President On April 25

The Oklahoma State Medical Association will inaugurate its first woman president on April 25 when Mary Anne McCaffree, MD, takes office. The presidential gavel will pass from David M. Selby, MD, Enid, to Dr. McCaffree at the traditional Inaugural Gala, to be held this year at the Cowboy Hall of Fame in Oklahoma City. Dr. McCaffree will become the association's 93rd president.

A pediatrician-neonatologist in Oklahoma City, Dr. McCaffree earned her medical degree in 1971 at the University of Oklahoma. From 1971 to 1972 she was a first lieutenant in the U. S. Naval Reserve, serving her internship at Bethesda National Medical Center in Washington, DC. She stayed in Washington to complete both her residency and a fellowship at Children's Hospital National Medical Center.

Dr. McCaffree became an Assistant Professor of Pediatrics in 1975, an Associate Professor of Pediatrics in 1981, and was named a Professor of Pediatrics in 1989, all at the University of Oklahoma Health Sciences Center. She is also currently the President of the American Academy of Pediatrics, Oklahoma Chapter.

Over the years, Dr. McCaffree has received numerous awards to include the Byliner Award for Medicine (Women in Communications); Academic Physician Award (University of Oklahoma College of Medicine); Woman in Medicine Award (Girl Scouts of America); Ladies in the News in Medicine (Oklahoma Hospitality Club); Leadership Oklahoma City, Class 7; Leadership Oklahoma, Class 7; and others.

Dr. McCaffree has also been a member of many medical societies, has

held several offices, and has served on countless committees, including those representing the University, Children's Hospital, Community Organizations, the State of Oklahoma, National Organizations, and the Oklahoma Medical Center. She is widely published, and a highly regarded seminar speaker.

A review of her curriculum vitae tells the story: Dr. McCaffree has always taken an active role in organized medicine, not only in this community, but regionally and nationally as well. She has been a leader at OSMA for a number of years, while earning a good reputation for her civic activities.

Dr. McCaffree is married to D. Robert McCaffree, MD, and together they have two children, Sara and Matthew. □

WEBWISE

January marked the launching of Tulsa County Medical Society's new website on the Internet. The site's URL is <<http://www.t-c-m-s.com>>. It is to include information about the medical society, a complete roster of members, the latest issue of Tulsa Medicine, and photographs and biographies on new applicants. Also planned are lists of TCMS committees and councils, medical society meetings, news on legislative activities, and a link to the Oklahoma Centralized Verification Organization (OCVO). It is anticipated that the site will be continually updated.

Also online now is the Oklahoma Board of Medical Licensure and Supervision. Available at the site, <<http://www.osbmls.state.ok.us>>, is information on all actively practicing licensed physicians in the state, including such items as practice address, specialty, any board certifications, license number, and issue date of license. Also available is information on upcoming board meetings, results of the latest meeting, and forms for ordering applications for licensure and renewal. Information is updated weekly. E-mail to the board may be directed to <osbmls@osbmls.ok.state.us>.

Consumers can check physicians' credentials on the Internet at <<http://www.certifieddoctor.org>> website of the American Board of Medical Specialties (ABMS). The service also will search for subscribing board certified specialists by ZIP code or subspecialty. Keying in the correct spelling of a doctor's name will bring up matching names and certification status. Only the doctor's name, state, and specialty or specialties will appear.

Searches by ZIP code and specialty will bring up a list of matching subscribing board certified doctors, as well as any links to doctor's home pages and hospitals. The program will also develop web pages for physicians and hospitals.

For information on subscribing to appear in the search component, contact David at 1800-733-2267 ext. 158.

The National Rural Health Association is holding its 21st Annual National Conference in Orlando, Fla., May 13-16, 1998. For more information contact the NRHA at (816) 756-3140 or visit the NRHA website at <<http://www.NRHA rural.org>>.

The National Alliance for the Mentally Ill (NAMI) may be reached at <<http://www.nami.org>>.

Useful sites for AIDS information: AIDS Clinical Trials Information Service: <<http://www.actis.org>> AIDS Education Global Information System: <<http://www.aegis.com>> Centers for Disease Control and Prevention (CDC) National AIDS Clearinghouse: <<http://www.cdcnac.org>> HIV/AIDS Treatment Information Service: <<http://www.hivatis.org>> National Association of People with AIDS: <<http://www.thecure.org>> Project Inform (HIV Treatment Hotline): <<http://www.projinf.org>> National Minority AIDS Council: <<http://www.thebody.com/nmac/namacpage.html>>. Netscape and Explorer are no longer the only browsers in town. Now there's a third browser available for Windows environments—Opera. A thirty-day evaluation copy can be downloaded from <<http://www.operasoft.com>>. It's small (approximately a 1MB download), nimble, customizable, and best of all, fast! Try it. You might like it. You might even want to buy it (\$35) when the trial period expires. It's certainly a welcome respite from the browser wars.

Corrections: 1998 OSMA Directory of Physicians

Individuals

Acker, Stephen E., MD, radiation oncology, Tulane 1965, 4212 Upper Lake Road, Norman, OK 73072-9474, ph: 405-360-8266, fx: 405-366-0161, e-mail: sackermnd Etelepath.com

Anderson, Michael Terry, MD, 1201 S. Douglas, Midwest City, OK 73130, ph: 405-7374494, fx: 405-732-7149

Arthur, R. Eugene, MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-552-9450, fx: 405-552-9443

Barrette, Gregoire, MD; obstetrics and gynecology; 77-Columbia Presbyterian Hospital, New York; P.O. Box 2070, Claremore, OK 74018; ph: 918-341-4158; fx: 918-341-4953

Bergman, Donald R., MD, P.O. 35185, Tulsa, OK 74153-0185

Bhatia, S.K., MD, retired, 11125 Blue Stem Back Rd., Oklahoma City, OK 73162, ph: 405-721-9001

Blaschke, Jon W., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-552-9460, fx: 405-552-9443

Blaschke, John A., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-552-9460, fx: 405-552-9443

Boka, Suzanna, MD, Internal Medicine, 1029 E. Washington, McAlester, OK 74501, ph: 918-426-1600, fx: 918-426-1300

Bullen, John A., MD, ph: 405-773-5530

Camp, Mark A., MD, 711 Stanton L. Young, Blvd., Suite 725, Oklahoma City, OK 73104, ph: 405-271-5850, fx: 405-271-3434

Carson, Craig W., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-844-0562

Chan, Harvey, MD, 507 N. Bullitt, Holdenville, OK 74848, ph: unlisted

Cook, M. Dean, Jr., MD, 1201 S. Douglas, Midwest City, OK 73130, ph: 405-737-4494, fx: 405-732-7149

Drummond, Jonathan E., MD, 416 S. Knoblock, Stillwater, OK 74074, ph: 405-3722033, fx: 405-372-2388

Evans, J. Patrick, MD, ph: 405-552-9408, fx: 405-552-9421

Fite, Edward H., Jr., MD, 4700 Girard Street, Muskogee, OK 74401, ph: 918-682-1994

Funches, Terri L., MD, 1201 S. Douglas, Midwest City, OK 73130, ph: 405-737-4494, fx: 405-732-7149

Holden, David L., MD, ph: 405-522-9406, fx: 405-553-9475

Howard, Thomas C., MD, ph: 405-552-9412, fx: 405-552-9421

Hulsey, Mark A., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-9454, fx: 405552-9443

Hynd, Robert F., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-552-9454, fx: 405-552-9443

Ingmire, Thomas E., MD, 6957 NW Expwy, #183, Oklahoma City, OK 73132, ph: 405773-1361

Janssen, Thomas P., MD, ph: 405-552-9435, fx: 405-552-9475

Jay, George, MD, ph.: 405-552-9463, fx: 405-552-9474

Jones, Ed, MD, ph: 405-949-6401 Kimerer, Neil, MD, retired, 2800 NW 25th, Oklahoma City, OK 73117, ph: 405-942-6878

Lehr, Blaine, MD, ph: 405-951-4949

Love, Tim, MD, ph: 405-951-4949

Low, Warren G., MD, ph: 405-552-9402, fx: 405-552-9475

Margo, Marvin K., MD, retired, orthopedic surgery, 748-University of Oklahoma, 6600 Trenton Road, Oklahoma City, OK 73116, ph: 405-842-8428

McArthur, Robert L., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-552-9454

Messenbaugh, Joseph F., MD, ph: 405-552-9400, fx: 405-552-9475

Morgan, Patrick M., MD, 1201 S. Douglas, Midwest City, OK 73130, ph: 405-737-4494, fx: 405-732-7149

Norwood, O'Tar, MD, ph: 405-951-4949 Puckett, Jerry H., MD, Otolaryngology, ph: 918-497-3163, fx: 918-495-2609

Rice, Edwin E., MD, ph: 405-552-9414, fx: 405-552-9421

Rivera, Angel D., MD, 1201 S. Douglas, Midwest City, OK 73130, ph: 405-737-4494, fx: 405-732-7149

Rivera, Angel D., MD, 8121 National Ave., #300, Midwest City, OK 73110

Ruidera, Grace M., MD, 1201 S. Douglas, Midwest City, OK 73130, ph: 405-737-4494, fx: 405-732-7149

Samant, Priya P., MD, P.O. Box 60622, Oklahoma City, OK 73146-0622.

Schnebel, Brock E., MD, ph: 405-552-9410, fx: 405-552-9421

Squires, Ronald A., MD, University of Missouri-Kansas City, P.O. Box 26901, Department of Surgery, Oklahoma City, OK 73190, ph: 405-271-6240

Tkach, Stephen, MD, ph: 405-552-9404, fx: 405-552-9474 Tkach, Thomas K., MD, ph: 405-552-9452, fx: 405-552-9474

Tutt, Donald L., MD, ph: 405-692-1558, e-mail: medtrakWflash.net

Willis, Larry G., MD, 1110 N. Lee, Oklahoma City, OK 73103, ph: 405-552-9450, fx: 405-552-9443

Institutions

Lakeside Renaissance Women's Hospital, 11200 N. Portland Ave., Oklahoma City, OK 73120, ph: 405-936-1000, fx: 405-936-1001

McBride Arthritis Clinic—Northwest, 3435 N.W. 56th St., Ste. 208, Oklahoma City, OK 73112, ph: 405-945-4248, fx: 405-945-4248

McBride Arthritis Clinic—Norman, 900 N. Porter, Ste. 103, Norman, OK 73071, ph: 405-360-9390, fx: 405-360-9499

McBride Arthritis Clinic—Edmond, 1701 S. Renaissance Blvd., Ste. 110, Edmond, OK 73013, ph: 405-844-4978, fx: 405-844-0562

Shawnee Regional Hospital, 1102 W. MacArthur, Shawnee, OK 74801, ph: 405-2732270, fx: 405-878-8101

St. Anthony Hospital, fx: 231-3177

Anyone wishing to report a correction in a directory listing should use the form on page 163 of the directory and send it to OSMA's Membership Coordinator, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118-6073.

LETTER TO THE EDITOR

It was disheartening to read the paper authored by Lee F. Rickords, PhD, and Burhan Say, MD, ("Preimplantation Genetic Diagnosis: Prevention of Serious Genetic Disorders") of Tulsa's Children's Medical Center in the January/February 1998 issue of the JOURNAL.

The article promotes Preimplantation Genetic Diagnosis as the prevention of disease. In actuality, the paper encourages couples carrying genetic disease to participate in the deliberate creation of new life with the knowledge that the embryos will be screened and, if imperfect, destroyed. Such a procedure may offer parents a child without their particular genetic disease, but only with the understanding that others may be sacrificed to achieve that end. This clearly violates the minimal principle of medical ethics, "Do No Harm," and subverts the physician's role as advocate for the patient. The very act of distinguishing among the embryos at this early state in this procedure confirms the clear and irreplaceable individuality of each human life at this stage. Acceptance of preimplantation genetic diagnosis can only add to the ethical problems surrounding reproductive technology today.

For many years, Children's Medical Center has faithfully served the children of northeast Oklahoma, especially children with developmental disabilities and genetic disease. Often, it has been the only institution to which families of children with disabilities could turn for long-term care, knowing that their child, however disabled, would be valued as a human being. Preimplantation genetic diagnosis runs counter to the mission of Children's Medical Center to serve the children.

Phyllis W. Lauinger, MD
Tulsa

Folic Acid—Make it a Habit

May 1998, the Oklahoma State Medical Association, Oklahoma State Department of Health, March of Dimes Birth Defects Foundation, Oklahoma Pharmacists Association, and Oklahoma Osteopathic Association are collaborating on a campaign to prevent neural tube defects (NTDs) using Mother's Day as the theme. In 1992, the U.S. Public Health Service (PHS) issued a recommendation for all women of child bearing age (teens through 40s) who are capable of becoming pregnant to consume 0.4 milligrams (400 micrograms) of folic acid per day.¹ The daily consumption throughout childbearing years is critical, because half of all pregnancies are unplanned and the neural tube forms before most women realize they are pregnant. Unfortunately, few child bearing age women are aware of the PHS recommendation. Provisional statewide data from the Oklahoma Birth Defects Registry identified 47 cases of NTDs in 1996 for a rate of 1.0 per 1,000 live births in Oklahoma.

An article in *The Lancet* compared the effectiveness of folic acid supplements, fortified food and natural food folate at increasing red cell folate status.² Folic acid supplements and fortified food increased folate status among participants, while natural food folate was relatively ineffective. The researchers concluded that advice to women to consume folate-rich foods as a means to improve folate status is misleading. The prudent message is that women need to consume folic acid from both multivitamins and natural foods.

In 1997 the Gallup Organization conducted its second national telephone survey of women between the ages of 18 and 45 years regarding knowledge and consumption of folic acid.³ As in the previous survey, the majority (70%) of women reported receiving information on health and pregnancy from their physician. However, of the 22% of women who were aware of the PHS recommendation on folic acid, 39% learned of the recommendation from a magazine or newspaper article, 28% cited radio or television, while only 22% reported hearing the information from their doctor. Physicians, regardless of their specialty, encounter women of child-bearing age daily in their practice. Considering the

credibility women give advice from their physicians, the PHS recommendation to consume 0.4 mg (400 mcg) of folic acid per day is a critical prevention message Oklahoma physicians can share with their child-bearing age patients.

All physicians throughout the state are invited to participate in the Mother's Day campaign. Posters and special educational Mother's Day cards have been developed around the theme: Happy Mothers Day, Folic Acid—Make it a Habit. Free posters and Mother's Day cards can be ordered by calling 1-800-766-2223; in Oklahoma City call 271-6617. Supplies are limited, so order soon.

1. Centers for Disease Control. Recommendation for the use of folic acid to reduce the number of cases of spina bifida and other neural tube defects. *MMWR* 1992; 41/No. RR-14.

2. Cuskelly GJ, et al. Effect of increasing dietary folate on red-cell folate: implications for prevention of neural tube defects. *The Lancet*, 1996; 347: 657-658.

3. Preparing for Pregnancy II. Second National Survey of Women's Behavior and Knowledge Relative to Consumption of Folic Acid and Other Vitamins and Pre-pregnancy Care. March of Dimes Birth Defects Foundation, June 1997.



Proposed New Hepatitis A and Varicella Requirements

There are two bills making their way through the Legislature that would add hepatitis A and varicella vaccines to school entry requirements, and make other changes. Both measures have passed the State Senate.

Senate Bill 1400, authored by Sen. Kelly Haney, would add hepatitis A to school requirements, as well as give the State Board of Health the authority to amend the list of immunizations required for a child to be admitted to a day care center or home. The State Board of Health already has this same authority with regard to school entry requirements.

Senate Bill 887, authored by Sen. Angela Monson, would add varicella vaccine to both state day care and school immunization entry requirements. It would also give the State Board of Health the authority to amend the list of immunizations required for a child to be admitted to a day care center or home.

Prompting the proposed hepatitis A requirements is the fact that the State of Oklahoma has experienced a serious epidemic of hepatitis A over the past three years. The epidemic

is the worst to hit Oklahoma since the 1960s and has caused Oklahoma to have the highest statewide incidence rate of hepatitis A in the United States. Thousands of Oklahomans have suffered yellow jaundice, nausea, vomiting, and abdominal pain. Hundreds have been hospitalized, and thousands of weeks of work have been lost and family lives disrupted. This public health problem has been exacerbated by a nationwide shortage of hepatitis A immune globulin.

The results of a recent varicella study, using an estimated cost of \$35 per dose of vaccine and \$5 for vaccine administration, indicated a savings of \$5.40 for each dollar spent on routine vaccination of preschool-age children when direct and indirect costs were considered. An estimated 33% of cases occur in preschool-age children (1 to 4 years of age), while 44% occur in school-age children (5 to 9 years of age). More than 90% of cases occurred in persons less than 15 years of age. Between 1990 and 1994, almost 250 people in the United States have died from complications from varicella infection. □

What If

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Fax (918) 250-5016

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- Disability Income Insurance
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- Workers Compensation
- PLICO Health
- High Limit Term Life

The Stealth Acid

Hydrofluoric acid is an extremely corrosive inorganic acid with wide commercial applications largely due to its ability to dissolve silica. This property makes it invaluable to the semi-conductor and glassware industry but it can also be found in the processing of fabric and leather, in the production of propellants and fuels, and in the cleaning of marble and brick. Present household uses include aluminum brighteners (automobile wheel covers), rust and scale removers (air conditioning units) and heavy duty cleansers.



The majority of exposures involve the fingers or palmar surfaces of the hand although industry exposures often are much more extensive and dangerous with stronger acid concentrations and larger surface areas involved.

Compared with other acids, hydrofluoric acid is relatively nonionized...more readily crossing lipid membranes and penetrating to deep subcutaneous tissues. Once absorbed, the hydrogen fluoride can dissociate and produce toxic symptoms associated with free hydrogen and fluoride ions. Commonly, over 90 % of hydrofluoric acid exposures result in the development of toxicity and a great majority of those will require evaluation and treatment.

The concentration of the hydrofluoric acid and the extent and duration of exposure have a direct relation to the development of toxicity. Solutions of less than 10-20 % rarely result in external corrosive effects but pain and erythema commonly occur and may be delayed as long as 24 hours after exposure. Concentrations of 20-50 % produce a more rapid (but possibly delayed by hours) onset of symptoms. Hydrofluoric acid in excess of 50 % causes immediate pain and tissue destruction. Symptoms described are usually out of proportion to the observed injury.

Systemic effects of hydrofluoric acid exposure are related to a variety of electrolyte abnormalities. These may include hypocalcemia and hypomagnesemia due to a complexing of these cations by fluoride and hyperkalemia due to extracellular efflux of potassium. Cardiac rhythm, hepatic and renal functions may be disturbed by these ionic imbalances. It has been estimated that severe hydrofluoric acid burns to less than 10 % of the body surface can cause systemic effects if left untreated.

Specific treatment is unsettled and there have been no controlled studies to establish the best protocol. Complete decontamination (including efforts to prevent secondary exposure to those providing care) is essential followed by copious irrigation for 15-30 minutes. The asymptomatic patient should receive the same treatment regardless of the concentration of the hydrofluoric acid. Following irrigation, some

type of complexation therapy may be used to render the fluoride ion non-toxic. For dermal exposures, many clinicians favor liberal and frequent application of a 2.5 % calcium gluconate gel (calcium gluconate powder in K-Y Jelly) or intradermal injection of 10 % calcium gluconate (NOT calcium chloride) into the exposed area. Treatment of ocular, oral and respiratory exposure is still very controversial but profuse irrigation and aggressive supportive care is essential.

Hydrofluoric acid exposure should be suspected when a patient presents with delayed and extremely painful dermal symptoms.

- G. K. Stanton

For further information on the treatment options for hydrofluoric acid exposure or for other poison information...call the Oklahoma Poison Center at 271-5454 (Metro OKC) or 1-800-POISON-1 (1-800-764-7661) statewide.

Physicians Pay Too Much Tax!

Are you fed up with giving more and more of your hard earned profit dollars to a Federal and State government that spends faster than you can send it to them? Do you ever wonder how some of your professional friends don't seem to make any more than you do, but they always have more left over after paying taxes?

It really breaks my heart when I see physicians working so hard to make ends meet, only to have income taxes eat up whatever profit finally finds its way to the bottom line. Think of how many things you have to worry about—employees, receivables, insurance, professional liability—on and on. After you've dealt with all of this, you'd think you'd be entitled to keep a little for yourself, wouldn't you? But, the government has other plans. And so, you pay. And you pay. And you pay.

There are solid, legal strategies you can put into effect to reduce this bite on your hard earned dollars. We know a lot of them. And, we've been helping professionals in Oklahoma just like you for many years. Don't you think it's time you started taking advantage of what we know?

Call toll-free 1-888-574-4496
Free recorded message 24 hours



Hassle Factor Log

Oklahoma State Medical Association

Physician Name _____ Specialty _____

Address _____

City _____ State _____ Zip _____

Contact Person _____

Request in relation to: (circle one) Medicare Medicaid Workers Comp.
Managed Care Plan Commercial Ins.
Other: _____

Name of Carrier or Agency: _____

Time spent on problem: Staff time (hours) _____ Physician Time (hours) _____

Type of problem: (circle all that apply)

Denial of Preauthorization	Down Coding/Recoding of Claims	Excessive Telephone Hold
Denial of Referral	Requests for Copy of Medical Records	Pattern of Late Payment
Denial of Claim	Inaccurate Data Entry by Insurer	Requests for Operative Report
Delay in Payment	"Missing" Support Documents	Other Documentation Requests
Lost Claims	"Missing" Claim Information	Numerous Calls for Single Claim
Pre/Post Payment Review	Telephone Always Busy	Other (specify) _____

Brief description of the problem:

***Important:** The Oklahoma State Medical Association is attempting to document and tabulate "Hassles" by third party payors. We ask that you make multiple copies of this log and have your office staff/billing personnel fill one out for each instance. After we have accumulated a sufficient number to demonstrate a pattern by third party payors, we will contact them and ask for resolution of the problem. However, we need specific documentation of the incidents and hope that you will help us so we can confront the insurance companies with these "Hassles."

Mail or fax responses to the OSMA Headquarters at *fax* 405-842-1834 or *mail* to 601 W I-44 Service Road, Oklahoma City, Oklahoma 73118

DEATHS

✱
Emil Maurice Childers, MD
1920 - 1998

Haskell, Okla., native Emil M. Childers, MD, died February 22, 1998, in Tulsa. He earned his medical degree at the University of Kansas Medical School in 1945 and completed his internship at Western Pennsylvania Hospital in Pittsburgh, Pa. Dr. Childers was a surgeon in Tulsa for many years.

✱
Fred Thomas Fox, MD
1904 - 1997

Fred T. Fox, MD, Lawton, died December 6, 1997. He was born June 7, 1904, in Eskridge, Okla., and was a 1930 grad-

uate of the University of Oklahoma School of Medicine. He completed his internship in Oklahoma City. A retired surgeon, Dr. Fox was a Life Member of the OSMA.

✱
Roy K. Goddard, Jr., MD
1916 - 1998

General practitioner Roy K. Goddard, Jr., MD, Skiatook, died February 9, 1998. Dr. Goddard was born in 1916 and earned his medical degree in 1943 from Temple University School of Medicine in Philadelphia. He was a member of the Tulsa County Medical Society.

✱
Burton Bonnard McDougal, MD
1919 - 1998

Physician Burton B. McDougal, MD, died February 23, 1998, in Chickasha, where he had practiced medicine for 50 years. He was educated in Texas and earned his medical degree from Southwestern Medical School in Dallas. He completed his residency in Chattanooga, Tenn., and following a U.S. Army tour of duty in El Paso, moved his family to Chickasha and started a general practice.

✱
Harold George Sleeper, Jr., MD
1921 - 1998

OSMA Life Member Harold G. Sleeper, Jr., MD, died January 26, 1998. The longtime Oklahoma City neuropsychiatrist was born in Wagner, Okla., and graduated from Texas University Medical Branch in 1945. Following an internship in Detroit, he was on active duty with the U.S. Army on detached service to the Veterans' Administration Hospital in Waco, Tex. While in the service, he attained the rank of captain. Dr. Sleeper was an instructor at the University of Oklahoma Medical School and former medical director at Willow View Hospital in Spencer, Okla.

✱
Byron Fremont Smith, MD
1921 - 1998

Byron F. Smith, MD, an OSMA Life Member born in Commerce, Tex., died February 21, 1998. He was raised in Britton, Okla., and graduated from the University of Oklahoma College of Medicine in 1945. During his 50-year career as an internist, Dr. Smith served as clinical professor of medicine at the OU Health Sciences Center, chief of medicine at Muskogee VA Hospital, and longtime staff physician at St. Anthony, Presbyterian, and Mercy hospitals in Oklahoma City. During his time in Muskogee he was on active duty with the U.S. Army.

IN MEMORIAM

1997

Edward J. Tomsovic, MD	January 2
Ronald W. Gilchrist, Jr., MD	January 19
Kenneth Rex Scivally, MD	February 8
Hays Richman Yandell, MD	February 19
Robert Edward Pollnow, MD	March 2
Jess Hensley, MD	March 25
Vester Meade Rutherford, MD	April 7
George Rainey Williams, MD	April 20
Benjamin Howard Gaston, MD	May 14
Roy Lawrence Neel, MD	May 19
William Carl Lindstrom, MD	May 21
Joseph Sansted Henderson, MD	May 26
Charles Marion O'Leary, MD	June 22
Dale Gustaf Johnson, MD	June 24
Edmond Herman Kalmon, Jr., MD	June 24
Edward Leroy Koger, MD	June 30
Gerald Matthew Steelman, MD	August 29
George Arthur Martin, MD	September 10
John Douglas Hesson, MD	October 18
Dorothy Rose Danna, MD	November 7
Marcus Lafayette Cox, MD	November 11
Curtis Bert Cunningham, MD	November 16
David Eugene Livingston, MD	November 21
Fred Thomas Fox, MD	December 6
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Byron Fremont Smith, MD	February 21
Emil Maurice Childers	February 22
Burton Bonnard McDougal	February 23

OU Evening of Excellence Honors John R. Bozalis

Oklahoma City allergist John R. Bozalis, MD, Oklahoma City, was honored January 29 at the University of Oklahoma College of Medicine Alumni Association's Evening of Excellence, held at Oklahoma City's Marriott Hotel. At this, the 14th Annual Evening of Excellence, Dr. Bozalis was presented the Dean's Award for Distinguished Medical Service.

Sharing the spotlight were civic leaders James H. and Christine G. Everest, recipients of the Dean's Award for Distinguished Community Service, and Tulsa's W.K. Warren Foundation, which received the Dean's Recognition of a Distinguished Oklahoma Institution.

The annual black-tie gala is a fund raiser benefitting the association's Research Fund, and to date the dinners have raised more than \$1 million.

Dr. Bozalis is a full partner and president of the Oklahoma City Allergy and Asthma Clinic. After his 1965 graduation from the University of Oklahoma, he completed both his internship and residency in internal medicine at Henry Ford Hospital in Detroit, where he was appointed chief medical resident in his final year of residency. He then completed a two year fellowship in allergy and immunology at the University of Michigan before serving as a major in the U.S. Air Force at Lackland Air Force Base in San Antonio.

He returned to Oklahoma City in 1973 and entered private practice. He is also a clinical professor of internal medicine in the OU College of Medicine. He is board certified in both internal medicine and allergy and immunology, and is a fellow of the American College of Physicians, American Academy of Allergy, Asthma and Immunology, and the American College of Chest Physicians.

In addition, Dr. Bozalis is a past president of the Oklahoma Allergy Society, Oklahoma Thoracic Society, the Osler Society, and the Oklahoma City Academy of Medicine. He has also served on several committees of the Oklahoma County Medical Society, as well as holding the editorship of *The Bulletin* for five years and the presidency of the society in 1996.

In 1992 Dr. Bozalis received the OU Regents' Alumni Award, and in 1993 he was named Physician of the Year by the OU Medical Alumni Association.

Previous winners of the Dean's Award for Distinguished Medical Service have included Drs. Don F. Rhinehart ('96), John R. Alexander ('95), Thomas E. Acers ('94), Mark A. Everett ('93), Stewart G. Wolf, Jr. ('92), Robert G. Tompkins ('91), and G. Rainey Williams ('90).

President of the medical alumni association this year is Edward N. Brandt, Jr., MD, Oklahoma City, and vice-president is Floyd F. Miller, MD, Tulsa.

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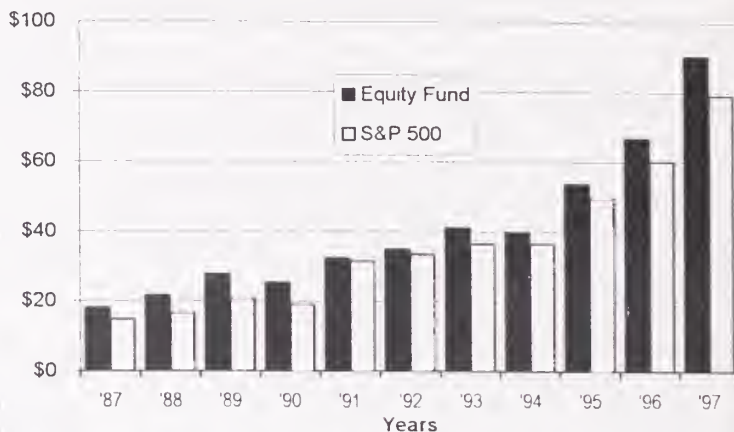
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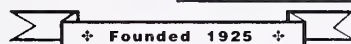
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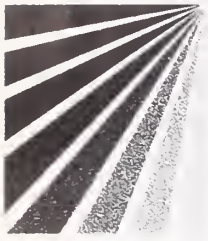
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THE LAST WORD

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■ **Beaver physician Ed L. Calhoon has been elected to the board of trustees of the Oklahoma Council of Public Affairs, Inc. (OCPA), a non-partisan public policy organization with trustees and members from across Oklahoma.** "We are honored to have Dr. Calhoon join our board," said Dr. David Brown, chair of both OCPA and the Washington, D.C. -based Heritage Foundation. "His wide ranging experience and expertise will be very valuable to OCPA as we try to promote pro-market, limited-government ideas which will help Oklahoma become more competitive with other states..

■ **The OSMA has recently established a blast fax system which will allow for immediate communication with those members who have fax capabilities.** All active members who have submitted their office fax number, as verified through the last directory survey card, has been added to this service. This method of communication can provide up-to-the-minute information at a cost comparable, and usually much less, than postage for traditional mail service.

■ **It has recently become very apparent that OSMA members need to improve the communication process with individual legislators before we can expect to impact issues where we face extremely difficult opposition, such as the laser surgery bill.** This communication effort does not happen overnight and must be established and then routinely maintained. It is vitally important that legislators hear from you on a regular basis regarding bills of interest to medicine. It is also imperative that they receive thank you letters and phone calls when they do vote in support of medicine's position.

■ **The OSMA Hassle Factor Log has been reprinted again in this month's *Journal*.** The log has been developed to assist physicians in documenting issues with various third party entities (insurance, Medicare, Medicaid, etc.) in relation to their practices. This log is a modification of a similar one used in Texas. The OSMA will collect information, identify patterns of issues, and develop strategies to respond to these issues. Patient identification is *not* requested. Please photocopy the log and use it as needed for reporting purposes. Documentation by physicians will assist the OSMA in identifying the issues.

■ **Following reports that the U.S. Department of Health and Human Services (HHS) has kicked loan defaulters out of Medicare/Medicaid, the Oklahoma State Medical Association (OSMA) immediately moved to discover how many of their physicians were on the government's defaulters list.** There was extensive media coverage regarding these "deadbeat doctors" and the \$1.1 million dollars owed by Oklahomans. How many Oklahoma Medical Doctors (M.D.s) were included in this "Deadbeat Doctors" list? **None.** In fact, only one person was listed in the Public Health category, and that individual reportedly owes \$17,478. The University of Oklahoma Health Sciences Center confirmed that the person was never in medical school and was only in their graduate program.

■ **The OSMA headquarters has installed a new telephone system with voice mail for individual staff members.** During normal work hours (9 a.m.-5 p.m., Monday- Friday), the OSMA phone will be answered by one of the receptionists or another staff member. If you are trying to reach an OSMA Staff member outside normal working hours, you may access their voice mail by entering the following extensions:

Debbie Adams, Membership	108
Shirley Burnett, Comptroller	103
Toni Farrar, Admin. Assistant	105
Marilyn Fick, Admin. Assistant	113
Brian Foy, Executive Director	115
Judy Lake, Legislation & OMPAC	102
Barbara Matthews, Admin. Assistant	112
Kathy Musson, Associate Director	101
Receptionists	100

■ **A.A. Mohammad, MD, Clinton internist, was honored recently by the American Heart Association (AHA) for Lifetime Achievement.** Dr. Mohammad was honored for his contribution to the American Heart Association both in Custer County and statewide. During his tenure as an AHA volunteer he co-founded the Custer County AHA Division and served as its president. He was president of the AHA Oklahoma Affiliate Board of Directors and has also served as chair of the Emergency Cardiac Care Section; he also is an affiliate faculty member and instructor.

■ **The National Rural Health Association is holding its 21st Annual National Conference in Orlando, Fla., May 13-16, 1998.** For more information contact the NRHA at (816) 756-3140 or visit the NRHA website at <<http://www.NRHArural.org>>.

■ **The Federation Coordination Team (FCT) is concentrating its effort in four areas of work:** Work Process Improvement, Electronic Communication, Identification and Promotion of exemplary federation programs, and Roles and Responsibilities. In a letter from FCT Chair, Jay Gregory, MD it was reported that the FCT anticipates a spring 1998 rollout of two existing projects: Work Process Improvement and VFED.ORD. The Physician Patient Advocacy Task Force is establishing the Issues Center as a component of the VFED page. The Center will be an electronic library of presentations and training materials on issues relevant to organized medicine such as the transformation of Medicare. The FCT continues to look for ways to examine roles and responsibilities throughout the federation, with the goal of describing federation roles and highlighting existing and potential collaborations among medical societies. As always, the FCT needs your input and support to achieve the goal of creating a more efficient and coordinated federation. Please contact Lila Valinoti at the AMA, 312-464-4146 with any questions or comments.

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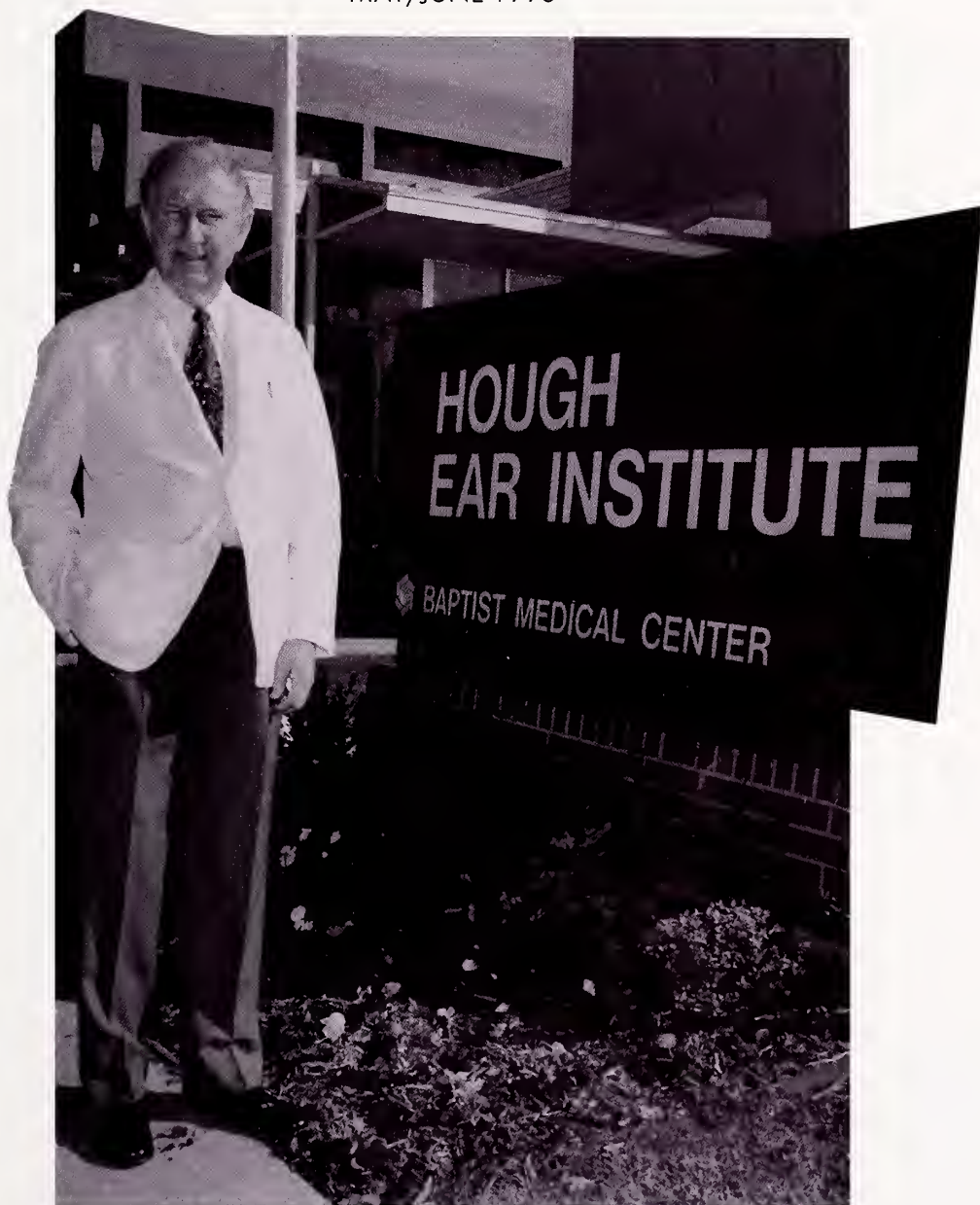
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Jack Hough is chosen as a "Leader in Medicine."

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Windows on the Future

The widespread use of computers in our society has led to a major opportunity for a new quality and intensity of communication within the human family. Progressing from smoke signals to telegrams to telephones is already a near-miraculous leap forward, but it is earth-shaking to instantaneously send graphics and text to almost any other computer in the world. Information exchange has entered a new phase that will be as important to human history as the invention of printing.

The Oklahoma State Medical Association has begun to move into the new Communication Age. An OSMA Web site was established last year and recently improved. The newly-formed Communications Council has begun to explore computer possibilities for continuing medical education, physician solidarity enterprises, legislation reactions, and other computer coordinated activities.

To realize the promises projected for the Computer Age will require energetic commitment of money, staff time, and individual physician computer competency. As in any enterprise, the degree of success will relate directly to the intensity of the effort applied by the members of the OSMA. The promise is magnificently huge, so it is to be hoped that the endeavor corresponds.

While we reach for the stars, we must not blink at the problems associated with computer communications. The World Wide Web is quite vast. In fact, it is so large and formless that it is almost like a swampland that has only occasional, and hard to find, hummocks of solid fact. While time-consuming to access, the reliability of Web data is often questionable, and so often erroneous or dated that it is of scant value to the professional. The problem of quality is discussed in "Rating Health Information on the Internet" in *JAMA*,¹ and the difficulties discussed in this article must be overcome in the near future.

On the legislative front, we take note that many politicians have Web sites, but many do not. E-mail access to our legislators is often limited, and it is nonexistent for some office holders. E-mail access to the solons can be expected to increase with time as the efficiency of the process becomes more apparent, but presently it is far from universal.

The printed word continues to be a meaty portion of our communication, and the OSMA News, the Journal, and the Week in Review serve useful functions that cannot be assumed into deleteable electronic format. The printed word can be perused, re-read, mulled over and kept in a style that electronic media does not duplicate. The print records of our scientific work and socioeconomic activities should have an archival and historic function for mankind long after all the electrons have departed our floppy discs.

The Journal continues to need good scientific articles, interesting case reports, therapeutic review articles, and constructive commentary on medical matters that are of interest to Oklahoma physicians.

Ray V. McIntyre, M.D.

Ray V. McIntyre, MD
Editor-In-Chief

Rating Health Information on the Internet. Jadad, A.; Gagliardi, A. *JAMA*: Vol. 279, No. 8, p.611.

An editorial is a column of personal opinion that may or may not reflect the official position of the OSMA



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Strength and a Good Foundation

As I look forward to a year of serving physicians as President of the Oklahoma State Medical Association, I reflect on some parallels of strength and good foundations from my childhood.

My childhood home had a strong foundation. Purchased by my parents when I was very young, the three-story Spanish tiled, red brick house was built in 1906 by a banker on the outskirts of town. It was a large and flexible home, accommodating the many diverse needs of the family. That home served our family well for many years before it was finally changed to accommodate a new highway.



Your State Medical Association has a strong foundation as well. With a 92-year history of serving physicians in Oklahoma, OSMA has accommodated the many needs of a diverse membership and an ever-changing medical field. While the Evaluation and Management codes of the Medicare program currently threaten our profession, the OSMA and this president stand firm, advocating for the doctor-patient relationship.

Recently our representative, Dr. Jack Beller, attended a meeting of the AMA on "E and M" coding. These onerous codes are "on hold" indefinitely until the objections of physicians can be addressed. Your input is needed as OSMA continues to work and solve this problem that attacks the very foundation of the House of Medicine.

Like my home, the OSMA has expanded and been remodeled. The blueprints for OSMA's continued growth are detailed in the Long-Range Plan. New areas of focus within the design are in the area of Public Health: tobacco, substance abuse and geriatrics.

The 1998 State of the State of Oklahoman's Health report from the Oklahoma Board of

Health shows that diseases relating to tobacco and alcohol rank the highest as causes of mortality and morbidity. The Council on Public and Mental Health will develop new initiatives to address these concerns. Substance abuse prevention for youth will concentrate on the media and its effect on teenagers. A June meeting, sponsored by the American Academy of Pediatrics, will involve several physicians from Oklahoma. Efforts to decrease youth access to tobacco will be coordinated with other interested groups such as the Tobacco-Free Kids Coalition and the American Lung Association/American Thoracic Society Oklahoma Chapter. Other groups interested in promoting healthy lifestyles will be recruited to form a partnership with the OSMA.

Another addition to your OSMA House of Medicine is a focus on geriatric health. Dr. Marie Bernard, chair of Geriatric Medicine, attended the May "end of life" meeting sponsored by the AMA. This program included a "train the trainer" component that will result in plans to disseminate the educational information throughout the OSMA.

This year, the Osteopathic Physicians were welcomed to the OSMA, constructing an even-stronger foundation for our House of Medicine. These fellow advocates for patients' rights and quality health care can strengthen our position in the fight to ensure that the practice of medicine is not compromised.

Many OSMA members are eager to join in the remodeling projects in this House of Medicine. Additions to the councils and committees are being recruited from the International Medical Graduates, the Young Physicians, Medical Student section, Resident section and the Alliance. All of these new representatives bring diverse talents and views to your OSMA.

Many members have dedicated their time and expertise, advocating for quality health

care through the OSMA. Dr. Tom Tyrone of Miami chairs the OSMA's effort to address Managed Medicaid issues.

As you choose to become involved in your community over this next year, please document your generosity and forward the information to the OSMA. We want to be able to develop a report card detailing the "A+" contributions of our membership to their communities.

My childhood home withstood several negative forces: tornadoes, a grasshopper plague, the Oklahoma elements, and highway development. Through it all, my home stood strong.

Likewise, your OSMA works together to make sure that the forces against it do not dismantle this House of Medicine, but serve to strengthen it. The strength of your professional,

spiritual, ethical and moral code is greater than mere concrete, bricks and mortar.

Together OSMA members will continue to have a strong Foundation.

Together, members will accommodate the diversity of our membership, continuing to build a strong OSMA.

And together, OSMA members will continue to change, progressing along the road to quality health care in an ever-changing world.

A handwritten signature in cursive script that reads "Mary Anne McCaffree". The signature is written in dark ink and is positioned above the printed name and title.

Mary Anne McCaffree, MD
President, OSMA

The Role of CT in the Diagnosis of Small Bowel Obstruction: A Case and Literature Review

Lorenz (Larry) Ramseyer, MD; Edward A. Abernethy, III, MD; Edward A. McCune, MD; H. Leland Steffen, MD

Abstract: In cases of suspected small bowel obstruction, CT may confirm the diagnosis and demonstrate the cause of obstruction, preventing a delay in surgical treatment. This article reviews several recent cases which demonstrate the utility of CT in this clinical scenario. Also, a review of literature suggests that CT may have a role in differentiating simple from strangulated small bowel obstruction.

The diagnosis of small bowel obstruction is usually suspected on the basis of history and physical findings. The radiological evaluation begins with plain abdominal radiographs. However, often the abdominal radiographs are not diagnostic. In the cases where abdominal radiographs are diagnostic of small bowel obstruction, the cause of the obstruction is rarely shown. CT can give additional information showing the presence of a small bowel obstruction, and in many cases demonstrates the cause of the obstruction.

Case 1: Small bowel volvulus without intestinal malrotation

A 68-year-old male was referred for abdominal pain, abdominal distention, nausea and vomiting. The patient's only surgery history was an appendectomy in the distant past. Physical exam revealed the patient to be in acute physical distress with abdominal pain. His upper abdomen was distended,

very tender and tympanitic. Plain abdominal radiographs, supine and upright, were obtained and were normal. A CT exam of the abdomen was also obtained.

The CT demonstrates multiple dilated loops of small bowel (Fig. 1). The maximum distention of the small bowel is 4 cm. Some of the loops of distended small bowel have a thickened wall with a target appearance, consistent with bowel wall edema due to ischemia. There is a transition point from normal calibre to distended small bowel at the distal duodenum (ligament of Treitz) with a beak-like appearance. Oral contrast medium is not seen beyond this point. There are overlapping loops of small bowel at 90 degrees. The distal small bowel and colon are of normal calibre.

The CT findings are diagnostic of a closed loop small bowel obstruction due to volvulus. No evidence of bowel malrotation is seen. The patient was taken to the operating room and an exploratory laparotomy performed. A small bowel volvulus beginning at the ligament of Treitz and extending distal several feet was found. The volvulus was reduced. No small bowel resection was



Figure 1. CASE 1. Dilated loops of small bowel with a thickened edematous wall (arrowhead). There is a beak-like appearance of the small bowel at the transition point, with criss-crossing loops of small bowel indicating small bowel volvulus.

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Fig. 2a: CASE 2. Normal abdominal radiograph.

necessary. The patient recovered uneventfully and was discharged home on the sixth postoperative day.

Case 2: Intestinal malrotation

An 18-year-old male presented with a 2-3 day history of severe cramping abdominal pain, nausea and vomiting. The patient had a similar, less severe, episode of abdominal pain one month prior which resolved after several hours of observation. The patient had abdominal surgery at age five for "twisted guts." Physical examination revealed a mildly distended abdomen with tenderness in the left lower quadrant and guarding. Bowel sounds were few. Plain abdominal

radiographs were obtained and were normal. (Fig. 2a) A CT of the abdomen was also obtained.

The CT demonstrates multiple loops of dilated small bowel. (Fig. 2b) There is a beak-like appearance of the small bowel in the left lower quadrant. The duodenum does not cross the midline. The colon is entirely to the left of midline, and is normal in calibre. These findings indicate malrotation of the bowel due to developmental abnormal positioning. This is also confirmed by the abnormal position of the superior mesenteric artery in relationship to the superior mesenteric vein. (Fig. 2c) Normally the superior mesenteric artery

is to the left of the superior mesenteric vein. In this patient the superior mesenteric artery is to the right of the superior mesenteric vein.

The CT findings are diagnostic of small bowel

obstruction and intestinal malrotation. The patient was taken to the operating room for an exploratory laparotomy. The small bowel was distended to the ileal region, where there was an obstructive, adhesive band. The intestinal malrotation was confirmed, with the colon entirely left sided. The adhesive band was lysed and the obstruction re-

lieved. Bowel resection was not required. The patient had an uneventful recovery.

Case 3: Obturator hernia

An 85-year-old female presented with a one-day history of generalized abdominal discomfort, more so in the right lower quadrant, and some nausea and vomiting. The patient had a history of gallbladder disease. The patient also had a history of a large abdominal aortic aneurysm, which had not been surgically repaired due to her age. There was no history of previous abdominal surgery. The physical examination revealed a slightly distended lower abdomen, tenderness throughout the abdomen, with tenderness extending into the right groin, and tympanic bowel sounds. A CT of the abdomen was obtained.

The abdominal radiograph demonstrates multiple dilated loops of small bowel throughout the abdomen. (Fig 3a) The CT images confirm the markedly dilated loops of small bowel. (Fig 3b) There is bowel gas and stool in the colon, which is of more normal calibre. Initially a diagnosis of adynamic ileus was entertained. However, images through the pelvis demonstrate a loop of bowel extending through the obturator foramen on the right, indicating a strangulated obturator hernia. (Fig. 3c)

The patient was taken to the operating room for an exploratory laparotomy. A strangulated obturator hernia on the right of the distal ileum was

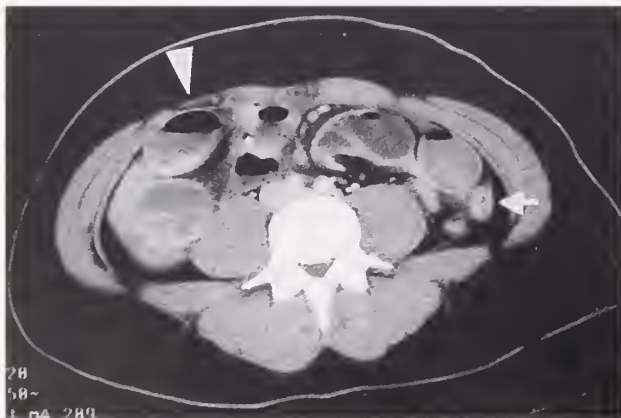


Figure 2b. The CT obtained the same day in this patient demonstrates multiple dilated loops of small bowel (arrowhead). The colon, which is entirely left-sided is decompressed (arrow).



Figure 2c. The superior mesenteric artery (arrowhead) lies to the right of the superior mesenteric vein (arrow). This positioning is the reverse of the normal anatomic positioning and is associated with intestinal malrotation.

confirmed and was surgically reduced. The obturator hernia was repaired. No small bowel resection was necessary. A cholecystectomy was also performed. The patient did well in the immediate postoperative period, however that evening the patient became shocky. She was transferred to ICU and transfused with several units of blood. Despite appropriate medical treatment the patient expired on the 4th postoperative day.

Discussion

The plain radiographic findings in two of our cases, Cases 1 and 2, were normal. In these cases there was a strong clinical suspicion of small bowel obstruction. CT was useful in confirming the clinical suspicion and demonstrating the level of obstruction and cause of obstruction. In Case 3 the plain radiographs were diagnostic of small bowel obstruction, however the CT was able to demonstrate the cause of the obstruction. In all three cases the CT added important information about the cause of the obstruction or about unusual anatomy.

Case 1 is an unusual example of a small bowel volvulus in the absence of intestinal malrotation. Case 2 is a good example of the CT diagnosis of intestinal malrotation. The duodenum is not visualised crossing the midline (since it stays on the right) and the colon is seen to be entirely left sided. A confirmatory sign is that the superior mesenteric artery lies in an abnormal position relative to the superior mesenteric vein.¹ Rather than being to the left of the superior mesenteric vein, which is its normal position, it lies to the right when there is malrotation.^{2,3} Although a sensitive sign for the presence of malrotation, this is not 100% specific. This finding has also been noted in a case of intussusception.⁴

Case 3 demonstrates the utility of CT in making the diagnosis of obturator hernia. Obturator hernia is an uncommon hernia that is primarily found in elderly women.⁵ The physical findings are relatively nonspecific. The preoperative diagnosis without CT is difficult due to relatively vague symptoms and because the hernia itself is most often not detectable on physical examination. Without the use of CT, the preoperative diagnosis is as low as 10%.⁵ The diagnosis can be made readily and accurately with CT. In a study of 10 patients with obturator hernia, all 10 were accurately diagnosed with CT when the study included the pelvis.⁶ Obviously, if the pelvis is not included on the exam the diagnosis cannot be made by CT.

Does the preoperative diagnosis of small bowel obstruction or the determination of the etiology

of small bowel obstruction using CT improve the clinical outcome? Although the literature is mixed, the preponderance of recent evidence demonstrates that CT is of benefit in this scenario.⁷⁻¹³ In a prospective study of 85 patients who were admitted to the hospital for possible small bowel obstruction, Frager et al at Columbia University found that CT correctly diagnosed 66 cases of small bowel obstruction (100% sensitivity).⁷ Twenty-five of these cases would have been missed by clinical findings and plain film radiography alone. The early CT diagnosis of small bowel obstruction prevented a delay in surgery in these 25 cases. Four false positive cases were reported with CT (83% specificity). Three of these cases were due to paralytic ileus and one due to a colonic obstruction.

CT is extremely accurate in diagnosing high grade obstructions. In several retrospective studies the level of accuracy was 90% or greater.^{8,9} This is far more accurate than plain film radiography alone, which has been reported to have a sensitivity of 69%.¹⁰ However, CT appears to have less sensitivity in the diagnosis of low grade obstruction, having been reported to have sensitivity as low as 56%.¹⁰ However CT can determine the cause of obstruction in 95% of cases where small bowel obstruction is diagnosed.¹⁰ CT has also been reported to be of benefit in the immediate postoperative patient in differentiation between postoperative ileus and mechanical small bowel obstruction.¹⁴ This is a difficult differentiation to make clinically or with plain radiographs. In a small study Frager et al found CT to be very effective in this differentiation (sensitivity and specificity, 100%).¹⁴



Figure 3a. CASE 3. The abdominal radiograph shows multiple dilated loops of small bowel.



Figure 3b: The CT demonstrates multiple fluid filled dilated loops of small bowel and the presence of ascites.

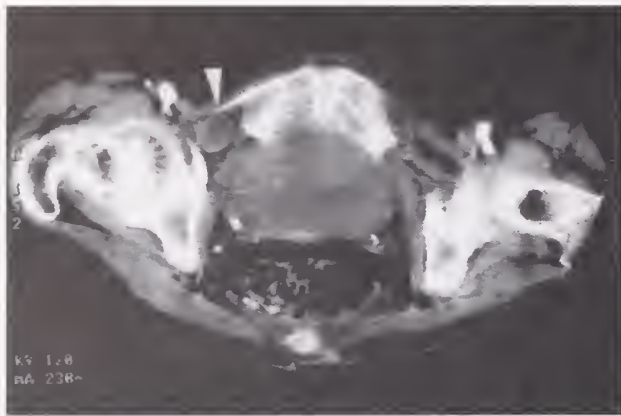


Figure 3c: Images through the pelvis demonstrate a small mass, consistent with a loop of bowel, lying between the obturator externus muscle and pectineus muscle. (arrowhead)

diagnosis of patients with suspected small bowel obstruction.¹⁰ Enteroclysis, as well as the less sensitive small bowel follow through, has several inherent weaknesses in the evaluation of small bowel obstruction. Due to the small bowel dilatation and retention of fluid proximal to the level of obstruction, the contrast material (barium) is diluted and detail is lost. The exam is also prolonged due to the slow transit time through the small bowel. Enteroclysis may be poorly tolerated by the patient due to the need for nasoenteric intubation. The exam can be very time consuming for the radiologist and can require a long period of fluoroscopy.

Small bowel barium studies can determine the presence of a small bowel obstruction, but are unlikely to show the cause. However, the barium introduced during a barium small bowel study will degrade the images on a subsequent CT due to beam-hardening artifact. For these reasons CT is a better choice for evaluation of patients with suspected small bowel obstruction in the acute care setting. Recent studies have indicated that CT may have a useful role in differentiating between simple and strangulated small bowel obstructions.^{15,16} Such a differentiation can alert the surgeon to the need for immediate surgery and prevent a surgical delay which would increase the risks of morbidity and mortality. The CT findings of poor enhancement of bowel wall, serrated beak in the bowel loop at the point of obstruction, large amount of ascites, unusual course of the mesenteric vasculature and diffuse engorgement of the mesenteric vasculature allowed detection of 85% of cases with strangulated small bowel obstructions

Entero-clysis (small bowel enema), which is a barium study of the small bowel after intubation of the jejunum, has been reported to be of value in the preoperative diag-

in a retrospective review by Ha et al.¹⁵ In a study of 60 patients with small bowel obstruction Frager et al found CT had 90-100% sensitivity and 50-64% specificity in determining the presence of intestinal ischemia, using similar CT findings as Ha et al.¹⁶

In conclusion abdominal CT has a useful role in cases of suspected small bowel obstruction where the clinical and plain radiographic findings are confusing. The literature suggests that CT may have a role in differentiating mechanical small bowel obstruction from postoperative ileus in the immediate postoperative period and in differentiating simple from strangulated small-bowel obstructions.

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LEADERS IN MEDICINE



Jack Hough, M.D.



Story by Richard Green

 February 19, 1945. D-Day. Lt. Jack Hough and the 4th Marine Division made an amphibious landing on the shores of an eight-square mile volcanic island aptly named Iwo Jima (meaning sulphur). They were there to liberate the island from the Japanese so that Iwo Jima could be used as an Allied way station for long-range bombing missions against the Japanese mainland.

The marines dug foxholes and awaited the order to advance. The enemy was entrenched above them on Mount Suribachi and Hill 382. As the Marines began inching forward in what amounted to a natural amphitheater – in plain view of the enemy – the allied air bombardment stopped and approximately 20,000 Japanese troops emerged from their tunnels and rained down an enormous barrage of firepower.

Only a few days before, Jack, knowing he was headed for combat somewhere, had attended a service in a little chapel on the Hawaiian island of Maui. He interpreted a scripture reading to mean he would survive. The reading was from Psalm 118: "I shall not die, but live, and declare the works of the Lord." But now, on February 19, advancing against constant artillery, mortars and rockets and seeing his comrades fall about him, Jack lost faith and figured he was "a goner."

Those first invaders were sitting ducks in a bloodbath; the initial casualty rate exceeded 90 percent. Although his nominal faith in God had deserted him, his courage remained intact. Hough, a 1943 graduate of the University of Oklahoma medical school, spent much of his time hopping from one shellhole to another, patching up the wounded and seeing that they were moved out.

He managed to stay at least one step ahead of death himself. Many times, he'd be dug in deep and suddenly feel that he should move. He would move...just before that spot would literally explode. Marines right next to him were wounded or killed. His pack was shot off his back more than once. A Catholic marine described the combat as a kind of purgatory: "It's almost hell, but you don't have to be there forever."

His sense of fear was unrelenting. Often, Jack's reaction to it was an almost overwhelming desire to sleep. He wanted to crawl under his helmet, like a turtle, and sleep. He fantasized about his wife, Jodie, being a widow and the child she was carrying being born without a father. Some time later, when Jodie was in a movie theater, newsreel film of the Iwo Jima landing was shown and she went into labor.

Jack may have wanted to sleep, but he obviously resisted the urge. When he later received the Bronze

Star, the citation read, in part, "During the first few hours of the attack on D-Day, Lt. Hough treated many casualties on the fireswept beach. He left his position of comparative safety to administer medical aid to wounded men lying in the open spaces in clear view of the enemy, and despite heavy artillery and mortar fire, he ran from one patient to another, completely disregarding his personal safety."

Although the war produced many battlefield conversions, Jack considered his experience to be a true enlightenment. Unlike years before when he had committed his soul to God at a tent revival in the southwestern Oklahoma town of Headrick – to ensure transport to heaven, this time Jack committed his life. He was positive God had a purpose for him.

More than fifty years later, he knows he was right. He believes his life has been a series of incidents that underscore that conviction. Doors to opportunity have always opened. Often he walked through; sometimes he had to be nudged. His faith in God has conferred on him many blessings and an unmatched record of achievement in his professional career in depth and breadth.

Forty years ago, he peered through a surgical microscope, and by seeing in detail the structures of the middle ear, began revolutionizing ear surgery for hearing restoration. About the same time, Jack also took the first steps in a life-long commitment to assist third-world countries to develop otology clinical and teaching programs.

Almost twenty years ago, he combined surgery with new electronic technology to provide implantable devices, cochlear implants, that enabled profoundly deaf persons to hear sounds, in some cases for the first time in their lives.

While he wasn't the first person to perform

cochlear implants, he was the first to advance the concept that the implantable electronic device could be adapted to provide a product that could be vastly superior to hearing aids. He and his team spent years of methodical, arduous, often frustrating research. They achieved remarkable and dramatic successes, but not without significant drawbacks...until this year when the team surmounted the last of the major obstacles.

Today, they are on the brink of proving the device's merit and safety not only to scientists, clinicians and the federal Food and Drug Administration, but ultimately to millions of hearing-impaired persons.



Jack Van Doren Hough was born in 1920 at Lone Wolf, Oklahoma, just north of the granite hills named the Quartz Mountains. He and his two older sisters were raised by their parents who were both school teachers. Before Jack was 10, the family moved to Headrick, east of Altus. He remembers Headrick as a "bustling boom town of cotton gins and board sidewalks."

Since the town's ethos was still grounded in the frontier mentality, there were plenty of tough customers thereabouts. Jack's father, Chapman Hough, had been named school superintendent. As the son of such a paragon of virtues, Jack felt he needed to show his classmates that he "could be as bad as anyone," even to the extreme of demanding unmerited paddlings in school.

It was perhaps inevitable that he and the preacher's kid would fight, as martyrs, in a way, to their fathers' professions. They stepped outside the church one Sunday night and Jack knocked the other boy down so many times that he finally stayed down.

When Jack's subsequent bragging got back to the preacher's kid the next day, he immediately renewed the challenge and another fight ensued. This time, however, they fought to a bloody standstill, which surprised and puzzled Jack until he heard that the preacher's kid couldn't see in the dark.

Notwithstanding his defensive posturing, Jack says he became a Christian of sorts in that little town. "I used to climb on the granite hills that just pop out of the prairie down there. The view from the summits is so beautiful and extends so far that I thought only God could be responsible for what I was seeing."

At a tent revival meeting, Jack made his first commitment to God. "Actually, I committed my soul, not my life. The preacher said heaven was

the ultimate reward, so I figured I'd need to make a commitment to assure transport up when it was time."

A short time later, he found a tangible way to demonstrate his seriousness. Though Methodists are traditionally baptized by being sprinkled with water, Jack had heard from some Baptists that only total immersion was real. So, he alone, in the group to be baptized, demanded a dunking, and a certain Brother Salter did oblige him.

The family moved on to Cameron (near Poteau) where Jack, at 16, graduated from high school in 1936. His grades had been excellent and he had been thinking about applying to the U.S. Military Academy at West Point. He had also been considering a law career because of his interest in politics and aptitude in forensics, and he had been encouraged by his father and several teachers to study medicine.

Despite the glamour associated with West Point, Jack dropped that option following a remark his father had made. "He told me that I could either learn the techniques for taking lives, or I could learn the techniques for saving them."

The nation was socked into the Depression in 1936 and jobs were hard to get. Jack enrolled at Southeastern State College in Durant, mainly because an older boy whom his parents had helped through school got Jack a job there for the summer before his freshman year.

He majored in pre-med, while starring on the debate team which won national awards and toured college campuses across the U.S. He was elected vice president of the student body and graduated summa cum laude in chemistry in 1939.

He probably would have applied to medical school anyway, but he practically felt duty-bound



The team that performed first hearing implant on a blind and deaf patient (patient is second from left on front row).



Mr. and Mrs.
Hough...newlyweds,
December, 1943.

to do so after he was threatened by a state senator from Durant. Unless Jack, the accomplished orator, joined his re-election campaign, the senator told him he'd never be admitted to medical school.

Jack flatly rejected the extortion attempt, applied and was admitted to the University of Oklahoma School of Medicine in 1940. "It was just a trial," Jack remembers. "I had no idea if I'd like it or not, but it seemed to be such a noble profession. If I washed out, I'd switch to the law, where I figured my talents were better suited anyway.

Jack studied hard but not compulsively. He found he could make decent grades and still have a good time socially. He seldom attended church because his beliefs and interests were changing. He was becoming a "pragmatist."

"From the pulpit, they said 'things will be all right if you pray hard enough,'" Jack remembers. "Well, I thought, that's not true. You have to make things happen. I felt like I'd been trained to walk all around it, look at it, and call it what it is."

His faith was in science. But if it turns out that there is a God, he recalls thinking, he had already made his commitment; he had his ticket.

He enjoyed his rotations with one notable exception: otolaryngology. "I thought the clinic was boring. The doctors looked like they were just fiddling around."

Otolaryngology would be the last thing he would practice, or so he thought. Toward the end of his medical school training, Jack was involved in two dramatic events. The first was the application of the new miracle drug, penicillin, to "our big enemy," infectious diseases. In the preantibiotic era before World War II, the life expectancy in

the U.S. was 47 years. Jack's closest friend in high school had died from strep throat.

"We gave injections of 25,000 units of penicillin and the infection would be cleared up the next day," Jack says. "It seemed to us like the whole world had turned upside down."

The second dramatic event turned his world upside down even more personally.

At a dance at the Civic Center's Mirror Room, Jack, a senior, cut in on a freshman and found himself so entranced by his red-headed dancing partner that he gushed: "You're as cute as a speckled pup under a red wagon."

She was a young co-ed named Jodie Ingle, who apparently was mutually smitten because four months later they were married...just a few days after Jack graduated from the OU medical school in December 1943. Jack was 23 and Jodie was 19.

A few days later, Dr. Hough left for a year's internship at the U.S. Navy Hospital in Farragut, Idaho. Like all the seniors, he had been inducted during his senior year to keep from being drafted. He then passed a competitive examination and was given an officer's commission in the U.S. Navy. After the internship, he would serve in the Navy until the war ended. Or so he thought.



It was a normal rotating internship program at Farragut. Jack did so well in the first specialty that he was asked to repeat that service by the department head. Ironically, it was otolaryngology. Jack was happy to oblige. There was a great variety of head and neck problems and he found that the work was easy for him. He had a remarkable facility for working quite deftly, "in small spaces down at the bottom of deep holes."

At first, he wasn't even aware of this ability. "But the other interns kept talking about how I could do this or that, and I was having fun," Jack says. "So, I figured maybe I was meant to do this."

When Jack became a commissioned officer in the regular Navy, he figured he'd be given a choice duty assignment. So he was surprised, at the end of the internship in 1945 when he received orders to join the Marines for basic training at Camp Pendleton.

Jack shipped out to the Fourth Marine Division on Maui. They knew they were going into combat, but not where. Jack was assigned as the doctor to an assault battalion of about 1,200 men. He was in charge of 40 corpsmen. "I was sort of a

roving ambassador among them, by helping to direct casualty cases and evacuations. He was also a morale booster. "With a doctor around, marines thought they were almost invincible," he says.

After the battle of Iwo Jima, Jack's unit returned to Maui to train for the invasion of the southern islands of Japan. "I was doing about 14 tonsillectomies a day in a converted schoolhouse because the corps commander didn't want any of the marines to have sore throats."

In August, the U.S. dropped atomic bombs on Hiroshima and Nagasaki and Japan surrendered. The war was over.



Jack joined the staff of the Oklahoma City Clinic and the Wesley Hospital in 1946. He practiced head and neck surgery while continuing to refine his skills at the University of Oklahoma hospitals. He was named a clinical instructor at OU in 1949 and was board certified in otorhinolaryngology in 1950.

He found the work to be very stimulating and challenging, so he continued to take advanced courses in head and neck surgery every year. Hough performed many pioneering surgeries, such as a radical neck laryngectomy. For his first 13 or 14 years of practice, he was the only young otorhinolaryngologist in town, and as such, was almost always on-call. The Houghs' two young sons, Ted and Jack, Jr., were raised essentially by Jodie during this period. Unlike some physicians who glory in their careers to the exclusion of their families, Jack felt badly about all the time away from his family. But he felt trapped. Another otorhinolaryngologist came to town and that helped some. Jack thought about limiting his practice, perhaps to just the "oto" part of the speciality.

But until the mid-fifties that would have left Jack with very little surgery to do. Then, in 1954 while he was a visiting professor at a course on reconstructive surgery at the Mt. Sinai Hospital in New York City, he heard that Dr. Samuel Rosen had developed a procedure that had restored some patients' hearing right on the operating table. Jack thought it was "about the most exciting thing" he had ever heard and asked Rosen if he could observe one of the operations.

Rosen agreed but his comments during the operation were "guarded, to say the least," Jack recalls. Nevertheless, the patient's hearing improved dramatically and Jack couldn't wait to get home to begin practicing the technique himself.

In hearing, sound waves set off a chain of imperceptible vibrations from the ear drum through a set of tiny bones that might have been named by a blacksmith, the hammer, anvil and stirrup. (Either the blacksmith spoke Latin or someone else decided that the names sounded better in Latin, for in medicine they are referred to as the malleus, incus and stapes, respectively.)

The sound vibrations pass from the stapes through an opening called the oval window into the inner ear. Here the vibrations are translated into nerve impulses that are processed in the auditory part of the brain.

Even with this perfunctory description, it is obvious that hearing depends upon several factors. Rosen's procedure helped only the seemingly small subset of patients whose stapes had become encased in a mysterious bony growth called otosclerosis. Because the stapes could no longer vibrate properly, the sound waves didn't reach the inner ear.

Rosen's procedure came about by chance. While preparing for another type of surgery, he accidentally shook the stapes loose and the patient's hearing improved on the spot. So he had begun to do it on purpose with a probe, and the hearing of about 75 percent of his patients improved.

Though Jack had that ability to work "in small spaces at the bottom of deep holes," perfecting the technique to free a bone the size of Roosevelt's ear on a dime would take even him some practice.

He began practicing the stapes mobilization procedure on cadavers at the OU medical school. The inability to see the work area well was the surgeon's main handicap. Rosen had used an apparatus called a loop that magnified objects two





Working on a hearing device in the lab.

times. Hough found the loop to be only a little better than nothing.

Nevertheless, he successfully performed the procedure on two or three patients with otosclerosis and then recalls leaving for a short vacation with his family. When he returned, a clerk at the Oklahoma City Clinic told him that there had been an avalanche of calls from hard-of-hearing people asking for appointments. He was booked solid for three months. "I was stunned," Jack says. "When would I do my normal practice?"

When he learned that most of those patients had been waiting for help for years, he decided to go through with the schedule; in three months he could return to his normal practice. But in three months, he was booked up for almost a year. The patients were coming from a five-state area. So, in 1955, he decided to limit his practice to otology. And no wonder.

Since his first few procedures, Jack had found the way to provide more magnification and light; he acquired a surgical microscope with a light and 35 millimeter camera attached. "The first time I used it in surgery, I was startled at how well I could see and just how beautiful that 'room' (the middle ear) is. At the higher magnifications I could even see the corpuscles running through the small vessels."

The microscope simplified the procedure but the surgery was proving to be of diminishing value. About 80 percent of the stapes were refixing in time because the disease was still present. Though Jack couldn't cure the disease, he was able, in the next three years, to accomplish the next best thing. Now that he could see the problems, he combined creativity and skill with a bit of luck to improve the success rate from 20 percent to 95 percent.

The procedure Hough has been using since the late 1950s is the partial stapedectomy, so-called

because only the diseased portion of the stapes is removed. Later, other surgeons found it more convenient to routinely remove the entire bone (stapedectomy) and replace it with a metal wire or piston. Though the stapedectomy produces good results, Hough believes that preserving as much of the natural bone as possible yields better sound transmission, particularly in the high frequency range. "Doing the partial takes a bit longer (about 30 minutes total for Hough) and requires a little more skill and patience," Hough says, "but even a little hearing loss can be very significant to the patient."



The year 1958 was a big one professionally for Jack Hough. He had been nominated by one of his mentors, Dr. Theo Walsh of St. Louis, for membership in a prestigious medical society of otolaryngologists. To be admitted, Hough had to submit a thesis to a committee. "I figured the only thing I could write about was all those funny looking ears I'd been operating on for the past three years," Hough says.

Indeed. The microscope had enabled him to see that middle ears are almost as distinctive as faces. So, he described the anatomical variations and congenital anomalies of 500 of his middle-ear surgeries. The thesis also included beautiful full color pictures of various middle ears. "From the beginning, every time I'd look into the microscope and see something different, I'd take a picture of it."

The thesis committee was astounded by Hough's paper and photos. Hough described at least 50 new discoveries. Some were merely interesting. Others were much more useful. He reported one case where the patient's hearing loss was due to an abnormal bony growth blocking the oval window (into the inner ear). When the window was opened (so to speak), the patient's hearing returned.

In another case, Hough described how he had recently taken a small amount of bone from the ear canal, and sculpted it to fit between a gap in the chain of middle ear bones. As a result, the procedure, which he had performed for the first time earlier that year, restored the patient's hearing. This was probably the first bone graft ever used in the middle ear.

That case was all the more remarkable because Hough had demonstrated that the probable cause of the gap was a fracture at the base of the skull, suffered years before. It always had been presumed

that hearing loss from basilar skull fractures was due to untreatable nerve damage.

Hough was admitted to the society, and received its Harris P. Mosher Award for the best scientific paper submitted.

Later that year, an event occurred in Chicago that set in motion a plan for sharing Hough's pioneering work in ear surgery with foreign countries, particularly third-world nations.

Hough was invited to attend a breakfast meeting of the Christian Medical Society by its president Ray Knighton. The guest speaker was Dr. Victor Rambo, a famous eye surgeon who had performed thousands of cataract surgeries in India. Perhaps providentially, Rambo and Hough were sitting side by side.

To fill a conversational void, Hough remembers saying "something stupid," such as "Well, it seems like everybody's blind in India, how's their hearing'?"

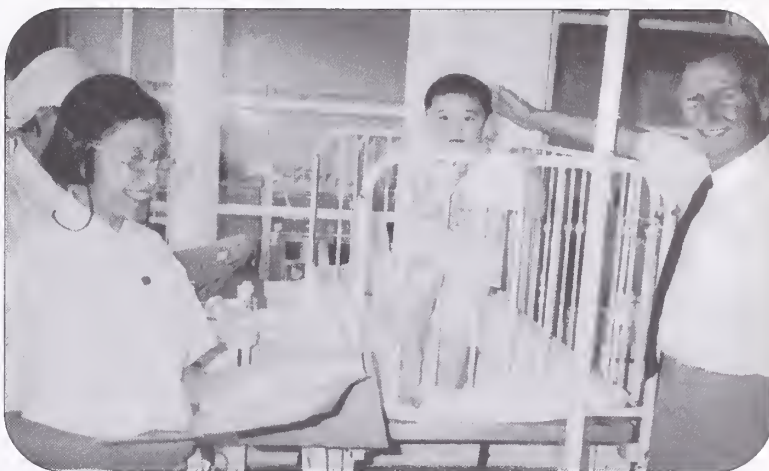
Rambo told his breakfast companion that indeed many people in India were hearing impaired. Then, he challenged Hough: "I understand you do surgeries that restore hearing. Why don't you form a team and come to India to teach our doctors. And then leave your equipment."

The sudden challenge left Hough "hanging on the ropes." "I mumbled something like, 'If it's the Lord's will, and just then an audiologist and an otolaryngologist sitting nearby said they'd be glad to be a part of the team.'"

The ball was rolling but Hough made no commitment that day to Rambo or to himself. He could let the matter slide; he had too many patients as it was. But, it occurred to him that the flourishing new field of otology would have no impact on those in underdeveloped countries unless people like him did something. So, he accepted the challenge.

Within a year, Hough traveled to Vellore, in southern India, where he performed several ear surgeries for selected doctors from almost every state in that nation. Hough's presence was intended to primarily call attention to Vellore as the site of India's center for microscopic ear surgery.

The stop in India was part of an around-the-world tour. Hough lectured on the new techniques in 18 other countries in Europe and Asia, and kept an eye open for good candidates for a fellowship program he intended to start. The fellows would train with Hough and live with his family for periods ranging up to a year. "I wanted them to live with us so that they could experience life in a Christian family in America," Hough says. "Most foreigners who visit our country never enter an American home. They develop the misperception that American family life is what you see on TV."



Dr. Hough at a hospital in China.



But each fellow had to return home to begin to establish an otology center. When possible, Jack would visit the former fellow's city to assist in that goal by teaching courses and providing equipment and supplies. Today, Hough's former fellows are well established not only in India but in several other third-world countries as well.

Jack's membership in the Christian Medical Society also led to his involvement in the creation of the Medical Assistance Program (MAP), which was run by the Society until the late 1950s. Jack soon became MAP's chairman of the board and served in that capacity until 1986. Now, a private, non-sectarian program, MAP International has provided hundreds of millions of dollars worth of drugs and medical supplies to mission hospitals in nearly 100 third world countries.

Working through MAP International, Jack personally provided more than \$6 million worth of medical supplies during the past three years to needy people in the Ukraine, Moldova and Vietnam.

The Haughs visiting with Dr. Vitali Omelianchek (right) and his wife Emma (second from left) and son Samuel. The Omeliancheks stayed in the guest house on the ranch while on a fellowship at HSC Dental School. They are from the Russian state of Maladva.



With a few of the horses Hough still keeps...mostly for fun.

By 1958, Hough had moved his practice, the Otologic Medical Clinic, out next to the new Baptist Medical Center. And with the addition of two more sons, Tim and David, the Hough family was complete. He thought his "platter was full." Then, tragedy struck. Jack, Jr., 15, whom the family called Van, was thrown from a horse and sustained a massive concussion. He was unconscious and paralyzed. The prognosis was poor. Van would most likely die or suffer permanent brain damage.

The family prayed for Van's recovery. "God does the healing," says Jack. "I had always told my patients that God does the healing. I'm just the catalyst to bring His will into play."

In Van's case, praying was all Jack could do, but it was enough. Within two weeks, Van had regained consciousness. He remained paralyzed for about three months, but gradually movement returned and in time all residual effects of his injury abated, except one. "Before the accident, Van was an indifferent high school student," Jack says. "Afterward, he seemed to want to prove himself. He went on to make straight A's and get a Ph.D. in political science."

Hough says his son's case is an example that all things work for good, just like scripture says they do. "In my work, I have seen many bad things work good for good people. Van's injury, if anything, made me even more dependent on God."

If Van had died, or lived with greatly diminished brain function, Jack's faith might have been tested longer. But by then his faith was based on far more than just his Iwo Jima experience.



Since the 1950s, the pioneering work of Dr. William House, founder of the House Institute in Los Angeles, had attracted

Hough's interest and respect. House had been developing an experimental approach that would allow the profoundly deaf to hear sounds.

Their deafness was due to the destruction of hair cells in the cochlea, located in the inner ear. Normal hair cells somehow respond to the sound wave-caused vibrations from the outer and middle ear by producing electrical signals that stimulate the auditory nerves leading to the brain.

House had been bypassing the defective hair cells with a cochlear implant, which consisted of an external and an internal device. The external part was a small transmitter, including a battery, microphone and the minute circuitry for amplification. It was hooked up to an inductive coil which naturally produced an electromagnetic field. The amplified electrical energy from the transmitter was carried through the skin electromagnetically to a surgically implanted magnetic coil. This coil had an electrode extension, the tip of which is implanted into the cochlea of the inner ear.

The patients heard sound, but the quality of their hearing varied greatly. Probably most of the early cochlear implant recipients heard sounds that resembled "a bunch of Martians" as one person described it. But hearing anything at all was better for most than hearing absolutely nothing.

That is essentially why Hough felt obligated to become involved. "I'd see deaf patients almost every day and there was so little I could do for them," Hough recalls. "You know, Helen Keller used to say that being deaf was much worse than being blind."



In the mid-1970s, Jack told Dr. House that he would be "glad to help out," by starting a similar program that could either confirm or deny House's results. In 1978, with the blessing and financial support of the Baptist Medical Center, Hough formed a cochlear implant team and performed the first operation in 1979. Because the problem involved electrical and mechanical engineering, rehabilitation and high-tech testing, Hough formed a multi-disciplinary team, including an audiologist, speech pathologist, mechanical engineer, electronic engineer, neurophysiologist and a psychiatrist. Eventually, the team generated the data to confirm House's results and demonstrated the usefulness and great promise of cochlear implants.

But first, a major problem had to be overcome. A method had to be found to keep the external and internal devices in apposition (precisely adjacent). Without apposition, the unit lost its connecting magnetic field and failed to work. Eye glasses and headbands had been tried without much success.

Then one day in 1978 while Hough and Gordon Richard, the team's electrical engineer, were standing in a cafeteria line with House, a possible solution materialized. They had been discussing magnets, when either Richard or Hough suggested using magnets to keep the devices in apposition. As Hough remembers it, House pooh-poohed the idea, suggesting that magnets could foul up the polarity of cells or the hemoglobin in the blood.

Later, the team's neurophysiologist, Ken Dormer, a professor of physiology at the OU Health Sciences Center, revived the idea after seeing magnets holding up his kids' drawings on the refrigerator. The team decided to give magnets a try. Tiny rare-earth magnets (samarium cobalt) were placed in the core of the inductive coils both inside and outside the body and, just like that, the apposition problem was solved. Later, Dormer conducted biocompatibility experiments on lab animals and no problems were detected.

Hough realized that this solution to the cochlear implant apposition problem had potentially a much wider application: the development of implantable hearing devices for millions of moderately to severely hearing-impaired persons. In collaboration with Oregon's Kresge Hearing Research Institute, Hough's team began an experimental program in 1980, first on animals and later on research volunteers. Hough implanted a temporary device immediately prior to a stapedectomy. The device improved the volunteers' hearing dramatically. But at this juncture, it occurred to Hough that instead of implanting the internal device in the middle ear, it might work just as well if a tiny magnetized surgical screw was implanted in the patient's temporal bone, behind the ear. This would cause the entire skull to vibrate, thus allowing bone conduction vibrations to stimulate the fluids of the inner ear directly. This would make the device more accessible and avoid contact with the middle ear.

At that point, Hough applied for a patent, and an investigator's permit from the federal Food and Drug Administration. The FDA permitted Hough and four other teams of his choosing to test the devices on groups of volunteers. They were from a population representing 85 percent of all hearing impairments: damaged (but not destroyed) hair cells of the inner ear. That translates, Hough says, to about 20 million Americans. He says it takes more energy, often in certain frequencies, for these stiffened hair cells to convert the sound waves from the middle ear to electrical-chemical signals that stimulate the auditory nerves leading to the brain. "Nothing can be done to damaged hair cells except to stimulate them more."



Dr. Hough has served in numerous leadership roles throughout his career.



One of the Houghs' favorite hobbies is reading.

The results from the five teams were uniformly superior, Hough says, in patients with middle ear impairment. "The hearing gain of those subjects far surpassed that of conventional hearing aids, especially in high-frequency ranges." Hough estimated that some four million persons could benefit from this temporal bone stimulator. The product was developed by Xomed, then a subsidiary of Bristol-Myers pharmaceutical company and Hough taught the technique to about 2,000 doctors.

However, the stapedectomy and tympanoplasty also would improve the hearing of most of those patients. Furthermore, the bone stimulator did not amplify sound sufficiently for the damaged cells of the inner ear, the major source (85 percent) of hearing impairments in the U.S. and the world.

So, Jack returned to his original idea (1959) of attaching a magnet to the middle ear's ossicular chain of bones so that sound waves would cause the hair cells of the inner ear to vibrate directly. In 1985, Hough and his team were back to the drawing board, but they knew they were on the right track.



The Houghs in front of the church that started in their living room.

Meanwhile, a Yukon church that Jack and Jodie founded in 1980 was thriving. It came about after the Houghs had moved from their Oklahoma City home to a 120 acre-ranch west of Yukon, and their Presbyterian Sunday evening Bible study group insisted that they stay together. Some of their Yukon neighbors joined the group and in time a consensus emerged that Jack, as the group's leader, should lead the effort to found their own church.

At first, they rented space for \$120 a month in the old Czech hall in Yukon. Their chapel was next to a large bathroom that was used for babysitting. The wall was thin, so periodically during the service, amid the happy sounds of childhood, a flushing toilet could be heard quite clearly. In another adjacent room, beer was on tap. After a few months, one of the original group, a man named Bob Coleman, put a check for \$100,000 in Jack's pocket and told him it was his initial installment for a new church. He asked Jack and Jodie to take the lead in its development.

Thus, the non-denominational Covenant Community Church was founded and built. For the first two years, Jack gave most of the sermons. Later, he led a group which recruited a dynamic minister and membership grew to about 900. Then, a school was added and Van, the son who almost died when he was 15, became its first headmaster. He led the school for 13 years.

Aside from Jack's leadership skills, he exhibits qualities that attract people undergoing spiritual crises. He has strong faith and dignity, obviously cares about people, is articulate and knows scripture and how to apply it appropriately. He has the deep baritone voice of a radio announcer, but one with

a country edge, which seems in sync with his grin and self-deprecating sense of humor. In conversation, people get the impression he is one of them, even if they are aware of his lofty professional stature.

To troubled people, he often recalls the parable of Jesus and the Apostles in the boat during a storm. They knew of his divinity — had witnessed signs of it — and although he was right there in the boat with them, their faith was shaky. I tell people, 'If you are in the boat with Jesus, you know it's not gonna sink and that the storm won't last. Hang on.'



In the mid-1980s, word got around the professional circles that Hough's research team was developing an implantable device that, if successful, would be far superior to any hearing aids. Not only would amplification, fidelity and signal-to-noise ratio (discriminating the sound you want to hear from background noise) be strikingly better, but the piercing shrieks and squeals caused by microphone feedback would be eliminated altogether.

About this time, the hearing-aid industry began to make progress in developing much better models. Hough believes this was no coincidence. "They [the industry] were asleep for a long time; they were not taking advantage of computer and microchip technology. I think what we were doing lit a fire under them. As a result, hearing aids got much, much better. If this stimulation was our only contribution to improved hearing, it would have been well worth all of our time and effort."

But Jack does not believe that serving as a stimulator will be his only contribution. He is leading two projects that he believes can result in substantial improvements in the world's hard-of-hearing population. The first is his team's continued meticulous and exhausting scientific research on all aspects of the implantable hearing device. As with all complex research, new knowledge emerged incrementally; trial and error most often showed them what would not work.

Twice during the last 10 years, they thought they "had hit a home run." Their implant, using one particular rare-earth magnet (neodymium iron boron), produced powerful amplification, and the five hard-of-hearing research volunteers were crowing with satisfaction and pleasure. But within two months, the magnets all had deteriorated and the volunteers were back wearing hearing aids. The team returned to samarium cobalt. Since its magnetic energy was not adequate, its capability had to be augmented by making it larger. Volunteers received the new implants, but the results were not as good as expected in the higher frequencies.

These unsuccessful efforts took years of work. But the team was not discouraged. "We knew we had all of the elements to make a highly successful and marketable product," Hough says. "But we had some obstacles to overcome."

Would a magnetic implant leach atoms out into body tissues, and if so, would they be harmful? The answer was that some leaching did occur, but with no apparent harm. Nevertheless, the team encased the magnet in a laser-welded titanium can. The last significant obstacle fell when the magnet's shape was modified from a doughnut to a sphere. "With the doughnut shape, the electromagnetic waves were evenly dispersed, which was wasteful because we were trying to direct strong amplification into the inner ear," Hough says. "With the sphere, the waves are concentrated at the tip and they pass with greater amplification into the inner ear."

Greater and clearer amplification is the main reason why Hough's device is far superior to even the best of today's hearing aids, especially in the higher frequencies and in settings like cocktail parties and restaurants, where discriminating speech from background noise becomes almost impossible.

Hough says the out-patient surgery to implant the tiny magnetic coil in the middle ear takes about 20 minutes. "It is very similar to the stapedectomy," Hough says. "So, thousands of doctors could be performing this procedure eventually."

The external processor that converts sound waves to electrical energy will be encased in a mold that will be worn inside the ear canal, like a conventional hearing aid. The team's ultimate goal is to eliminate the external device and package everything as an implant inside the mastoid and middle ear, Hough says. "The main thing we are waiting for is a battery with a lifespan from seven to 10 years and a moisture-free implantable microphone."

Recently, Hough formed a corporation, SOUNDTEC, that will manufacture and market the product. "We wanted to see if we could do it ourselves to avoid the greatly jacked up prices associated with major corporations and venture capital. Our objective is to keep the price relatively low, in the range of today's good digital hearing aids. With FDA approval, we will begin testing these models this year on study volunteers with moderate to severe inner-ear hearing impairments."

Of course, even if SOUNDTEC is able to manufacture and market the product for, say, \$2,000, that price is far beyond the means of the millions of hearing-impaired persons in third-world countries. With them in mind, Jack developed the idea of using the recent advances in hearing-aid technology to produce high-quality devices



Dr. Hough in his home office.

that could be manufactured and sold in third-world nations for a fraction of the cost in the U.S.

To facilitate this goal, he and his youngest son, David, an audiologist, founded Ototech International, Inc. in 1995. "We found we could buy and assemble off the shelf components to produce good quality hearing aids for about \$50," Hough says. "These are comparable to \$750 models on sale in this country. The idea is to provide these hearing aids at near cost to physicians and audiologists overseas, who would then sell them for a slight profit."

The biggest obstacle is getting the hearing aids past layers of government officials who all want a cut or to sell them on the black market. "From our end, I believe we have everything worked out, franchising the products and showing the health care professionals how to dispense them. About three years ago, we introduced this concept to two former countries of the Soviet Union: the Ukraine and Moldova. But as far as I know, none of the hearing aids have been sold. We are bogged down in red tape and corruption. It is very discouraging, but we are still looking for solutions."

At age 77, Hough is as captivated as ever by the challenges of trying to improve hearing for as many people as possible. Although he only operates one day a week, and has stopped doing intracranial surgeries, such as for acoustic neuromas, he remains energetic and highly motivated. "I still have long-term professional goals. There's nothing in the Bible about retiring at a certain age. In fact, I couldn't even find the word."

"Seems like, at every stage of my development, I was always younger than everyone else. And now, it seems ludicrous that I'm seen as the elderly one. I know I can't do certain things anymore, and maybe I'm smarter in some ways than I used to be. But inside I don't feel any older. The human spirit never changes age."

Change and Quality

Joe D. Haines

The only thing constant in health care today is change. Likewise, the history of medicine is the story of constantly changing theories and facts. Yet many physicians have difficulty reconciling the changes in the health care system that affect our individual practices.

By scorning change and asserting oneself against it, we are in danger of becoming victims of change. A healthier response is to assimilate and master changes and use them to our best advantage. Thus our freedom is enhanced rather than diminished by letting the system define our boundaries of freedom.

As big business continues to dominate medicine, many of us have become uncomfortable with the increased emphasis on making money at the expense of medicine's social responsibility. In this era of change, it is imperative that medicine not become intellectually, spiritually, emotionally and financially fragmented.

There must be a quest for wholeness between the roles of healer (a.k.a. provider) and the corporate entity. The current divided psyche is a schizophrenic arrangement that results in a disservice to all. The fragments must be unified to form a balanced whole.

A quest for quality should also be our common goal. Quality can be defined as the pursuit of excellence. But today, the concept of quality is much abused. Every hospital and insurance company is loaded with quality assurance departments, quality control officers, and innumerable committees that have staked out responsibility for some aspect of quality in the delivery of health care. An entire industry has grown up around the pursuit of quality.

For the physician, administrative concepts of quality are often synonymous with least-common-denominator medical care. For example, physicians are encouraged to use generic standing order forms for hospitalized patients. The goal is ostensibly standardization of care, but physicians understand each patient is unique and orders are most intelligently written on an individual basis.

Using a cookbook approach to patient care by checking the boxes and filling in the blanks will never be an adequate alternative to careful consideration. Hopefully these standard orders will go the way of the algorithm, where patients have the frustrating habit of not fitting neatly into little boxes.

Another changing paradigm in medicine is the lifestyle and financial compensation system. Already many physicians have seen their incomes erode as HMOs and managed care pay only what is "allowable." Patients have likewise seen a curtailment in services. At the same time, we are asked to swallow the exorbitant salaries and bonuses for the top executives of health plans. Is a CEO really worth \$17 million a year?

Most physicians would agree that happiness is one of their goals, but why are the most successful people often not the happiest? Perhaps it is because they have set themselves up for unhappiness by placing their goals and expectations unreasonably high. The secret to happiness is to set realistic goals and then accomplish them.

By redefining one's goals to achievable levels, a sense of accomplishment and satisfaction can be had without setting oneself up for failure. In the race to succeed, it is often forgotten that we were not placed upon this earth to work for a living. Few people on their deathbeds regret that they didn't spend more time at the office.

When facing the inevitable problems that change engenders, adversities must be transformed into enjoyable challenges. Events that are perceived as neutral or destructive can be turned into positive ones. If goals are well-chosen, and if we have the courage to abide by them despite opposition, we can be so focused on actions that we don't have time to be unhappy.

As physicians, we must learn not to fear or resist change. This is indeed a difficult prescription to swallow, especially when the consequences of the changes are initially negative or unknown. In the past, changes in medicine were almost always for the greater good. Even with today's problems, it is doubtful most physicians would want to return to the medicine of five or ten years ago.

It is at times difficult to separate concern over our personal and financial well-being from our concern over medicine as a whole. By developing alternative sources of income, physicians can have insurance against possible losses in medical practice income. Once money is not a dominant or motivating factor, then we can be free to enjoy the satisfaction that money cannot buy; the joy of practicing medicine.

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Diagnosis and Treatment of Attention Deficit Hyperactivity Disorder in School Age Children

AMA Council on Scientific Affairs

Resolution 501, adopted at the 1996 Annual Meeting, directed: "that the American Medical Association [AMA] study the increasing number of diagnoses of Attention Deficit Hyperactivity Disorder (ADHD) and address public concern regarding possible over-prescription of ADHD medications." This report reviews the issues related to the diagnosis and treatment of ADHD and reviews the epidemiologic literature pertaining to ADHD prevalence and prescribing patterns. Abbreviations used in this report may be found in Table 1.

Background

Attention-deficit hyperactivity disorder (ADHD) is a commonly seen neuropsychiatric syndrome that has been extensively studied over the past four decades. It is a condition with onset in childhood, most commonly becoming apparent (and thus coming to medical attention) during the first few years of grade school. ADHD may be associated with a number of co-morbid psychiatric conditions as well as with impaired academic performance and with both patient and family emotional distress. The disorder typically persists throughout childhood and into adolescence. While it was previously thought that the disorder remitted before or during adolescence, it has become well-established that many patients will have an illness course that persists well into adulthood. Pharmacologic treatment, particularly with stimulant medication, is the most-studied aspect of management, although other forms of treatment (e.g., behavior therapy, parent training) are important parts of good clinical care.

Despite an enormous body of research into this disorder, various aspects of ADHD have generated controversy over the years. Three features of ADHD in particular seem to have contributed to the controversy:

- like most mental disorders, its diagnostic criteria involve patient history and behavioral assessment without the availability of laboratory or radiologic confirmation
- like many chronic illnesses of childhood, it has an early onset and extended course, thus requiring at times treatment of children and adolescents over many years

- its treatment often includes stimulant medications that have abuse or diversion potential.

Debate has centered on the appropriate assessment and "labeling" of children: there have been allegations that the diagnosis is merely applied to control children who exhibit unwanted behaviors in the classroom or elsewhere, and that medication is simply used to control such behavior. Along similar lines, concerns have been expressed about whether thorough-enough evaluations are being performed by physicians prior to starting medication. Apart from diagnostic issues, concerns have been raised about young children taking medications for lengthy periods of time. In addition, some critics have complained that overemphasis on psychopharmacological treatment has led to neglect of other treatment modalities or served as a distraction from family problems or school shortcomings. It should be stressed that these issues have been raised polemically or theoretically, rather than on the basis of particular scientific findings.

Another concern has been raised by the dramatic increase in methylphenidate (Ritalin) production and use in the United States in the past decade. This has raised questions about whether there has been: a true increase in the prevalence of ADHD in this time period; a change in diagnostic criteria affecting practice; improved physician recognition of the disorder; a broadened spectrum of indications for use of stimulants; and/or an increase in stimulant abuse, diversion, and/or prescription for profit.

It should be noted that debate over ADHD within the research and medical communities has been mild and mostly

Table 1. Abbreviations Used in this Report

ADDA	Attention Deficit Disorder Association
ADDH	Attention Deficit Disorder with Hyperactivity
ADHD	Attention Deficit Hyperactivity Disorder
ASPD	Antisocial Personality Disorder
CGAS	Children's Global Assessment Score
CHADD	Children and Adults with Attention Deficit Disorder
DAWN	Drug Abuse Early Warning
DEA	Drug Enforcement Administration
DSM	Diagnostic and Statistical Manual
MBD	Minimal Brain Dysfunction
ODD	Oppositional Defiant Disorder
PET	Positron Emission Tomography
SPECT	Single-photon Emission Computerized Tomography
SSRI	Serotonin Specific Reuptake Inhibitor

concerned with nuances in the diagnostic and treatment paradigms.¹ By contrast, highly inflammatory public relations campaigns and pitched legal battles have been waged (particularly by groups such as the Church of Scientology) that seek to label the whole idea of ADHD as an illness a "myth" and to brand the use of stimulants in children as a form of "mind control."^{2,3} These efforts, which have been widely reported in the news media, have created a climate of fear among physicians, parents, and educators, and have sown anxiety and confusion among the general public.⁴ It is thus most important to separate legitimate concerns raised by scientific papers from abstract, distorted, or mendacious information from other sources.

There are six main questions that underlie this professional and public concern and that this report will address by reviewing the pertinent research:

- Is there an agreed-upon set of diagnostic criteria for ADHD that reflects sufficient reliability and validity so as to delineate a clinically meaningful syndrome?
- What is the epidemiology of ADHD, and how can the apparent disparities in prevalence in different populations be explained?
- What is the course of the illness, and what are the adverse consequences of the illness that would justify treatment?
- What constitutes optimal treatment for ADHD, and how do stimulants fit into it?
- What are the adverse consequences of using stimulants, and in particular, what is known about the risks of abuse and diversion?
- Are children being appropriately assessed and treated in clinical settings to ensure that diagnostic criteria are being used appropriately, i.e., is there evidence of under-, over-, or misdiagnosis?

Diagnosis of ADHD

Hyperactivity in children was first described clinically in 1902. Many cases of postencephalitic behavioral disorders were reported following the pandemic of von Economo's encephalitis in 1918, and the first report of stimulant use to treat hyperactivity in that condition was in 1940. The absence of clear psychological and familial determinants and the high frequency of "soft" neurological findings even in hyperactive children who had not had encephalitis led to designating the condition "minimal brain dysfunction (MBD)," with the expectation that a consistent neurologic lesion or set of lesions would eventually be found.⁶

While the second edition of the American Psychiatric Association's diagnostic and statistical

manual (DSM-II) recognized the entity "hyperactive reaction of childhood," the first empirically-based official set of diagnostic criteria for what is now referred to as ADHD was delineated in the DSM-III in 1981.⁷ Early focus on the centrality of hyperactivity (the disorder was then called attention deficit disorder with hyperactivity or ADHD) shifted towards giving weight to attentional problems and impulsivity as well, which was later reflected in the 1987 revision (DSM-III-R).⁸ The current classification (DSM-IV) of the disorder now allows subtyping as predominantly inattentive type, predominantly hyperactive type, or combined type.⁹ These successive changes in diagnostic criteria reflect a combination of empirical research findings and expert committee consensus. The complete set of DSM-IV criteria can be found in the Appendix.

The DSM-IV criteria emphasize several factors:

- The symptoms specified in the criteria must be present for at least six months, ensuring that persistent rather than transient symptoms will be included.
- The symptoms must be "maladaptive and inconsistent with developmental level." This ensures that the symptoms are of sufficient severity to cause problems and that the child's age and neurodevelopment are considered in evaluating symptoms.
- The symptoms must be present across two or more settings, i.e., school problems alone do not meet criteria for the diagnosis.
- The symptoms are not better explained by another disorder, such as mood disorder, psychosis, or pervasive developmental disorder (autism).

The American Academy of Pediatrics has recently issued a diagnostic and statistical manual for childhood and adolescent disorders designed for use in primary care settings. The categories in that manual are symptom-oriented, and the diagnostic criteria for disorders within the category "impulsive/hyperactive or inattentive behaviors" refer the reader to the DSM-IV criteria.¹⁰

Taken as a whole, these criteria require an illness pattern that is enduring and has led to impairment. To make this diagnosis appropriately, the clinician must be familiar with normal development and behavior, gather information from several sources to evaluate the child's symptoms in different settings, and construct an appropriate differential diagnosis for the presenting complaints. This helps, for example, to distinguish children with ADHD from unaffected children whose parents or teachers

are mislabeling normal behavior as pathological. The diagnostic criteria as utilized by appropriate examiners demonstrate high inter-rated reliability of individual items.¹¹

It is important to bear in mind that the symptom picture for ADHD merely defines a syndrome with its own differential diagnosis. A number of other psychiatric, medical, and neurologic disorders (e.g., traumatic brain injury, epilepsy, depression) can lead to disturbances in attention and/or activity level.¹² Thus the diagnosis of "primary" ADHD is made when there is no evidence from the history, physical examination, or laboratory examinations of another condition producing the clinical picture.

The actual examination of the child is to determine whether the child meets diagnostic criteria and to look for conditions other than ADHD that might simulate it. The structure of a physician's office and the physical examination tend to minimize actual findings of distractibility and hyperactivity. Clinicians have therefore been cautioned not to rely too heavily on behavioral observations during their examination. In addition, poor insight or denial make many children unaware or unwilling to acknowledge ADHD symptoms themselves.¹³ Thus too much focus on a child's behavior in the office or his/her self-observations may lead to a missed diagnosis, while over-reliance on parental reports of abnormal behavior alone may lead to over-diagnosis.

A number of rating scales and psychological testing instruments may be used in the assessment of suspected ADHD, but none of these should be used in isolation to make or refute the diagnosis. Scales such as the Conners, SNAP-IV, and Disruptive Behavior Disorder Scale are more helpful in assessing and monitoring response to treatment than in making a diagnosis. Neuropsychological tests that focus on sustained attention such as the Continuous Performance Task, the Wisconsin Card-Sorting Test, TOVA, the Matching Familiar Figures Test, and WISC-R are similarly not diagnostic.¹

Thus the overall approach to diagnosis may involve: 1) a comprehensive interview with the child's adult caregivers; 2) a mental status examination of the child; 3) a medical evaluation for general health and neurologic status; 4) a cognitive assessment of ability and achievement; 5) use of ADHD focused parent and teacher rating scales; and 6) school reports and other adjunctive evaluations if necessary (speech, language assessment, etc.) depending on clinical findings.^{1, 14, 15}

Attempts to clarify the pathophysiology have been on several fronts. More than 20 genetic studies have revealed an average heritability of 0.80, with

up to 92% concordance in monozygotic twins and 33% in dizygotics.¹⁶⁻¹⁸ There have been six magnetic resonance imaging (MRI) studies of the brains of those with ADHD: all have found abnormalities, although the specific findings have not been consistent across the studies.¹⁹ Single photon emission computerized tomography (SPECT) reveals focal cerebral hypoperfusion in the striatum and hyperperfusion of sensory and sensorimotor areas.²⁰ Adolescent females with ADHD showed reduced glucose metabolism on positron emission tomography (PET).

With regard to neurophysiology, patients with ADHD demonstrate a pattern of under-reactivity to stimulation. This includes more rapid heart rate deceleration, smaller orienting galvanic skin responses, decreased EEG amplitude of response to stimulation, and more rapid habituation on evoked responses. Magnetic surfacing imaging studies show abnormalities in ADHD subjects that normalize with methylphenidate treatment. These findings and others, when taken together, provide increasing support for the concept of ADHD as a neuropsychiatric condition or set of conditions.

Even with the use of carefully applied diagnostic criteria, there remains the issue of the validity of ADHD as a discrete condition.² There are three aspects of validity: postdictive validity (whether there is a unitary etiology), discriminant or concurrent validity (i.e., whether those with ADHD differ from children with other disorders as well as from controls), and predictive validity (i.e., how well the diagnosis predicts a course and/or response to treatment).

With regard to unitary etiology, many medical conditions (e.g., heart failure, seizures) are syndromes representing a final common presentation of a number of pathophysiological disturbances. Thus the absence of a unitary etiology would be a weak argument against the validity of ADHD as a discrete syndrome. Nonetheless, the familial, genetic, neuroanatomic, and neurophysiologic studies are mounting evidence to date for postdictive validity. It should be noted that there are very few mental disorders for which there is either a known pathophysiologic mechanism or confirmatory laboratory investigations.

Findings with regard to concurrent validity are mixed. There is clearly a great deal of overlap between ADHD and a number of learning conditions and conduct disorder, among other conditions. Nonetheless, the deficits in behavioral inhibition seen in ADHD are specific to it and can be distinguished from disturbances in learning disorders.²⁴ The strongest evidence of validity has been for course prediction and treatment

response. Overall, ADHD is one of the best-researched disorders in psychiatry, and the overall data on its validity are far more compelling than for most mental disorders and even many medical conditions.^{25, 26}

Epidemiology of ADHD

A number of studies have examined the prevalence of ADHD in various populations. The patient sample used is critical because of variations in different settings: at least 10% of behavior problems seen in general pediatrics settings are due to ADHD, while children with ADHD make up to 50 % of some child psychiatric populations.¹⁵ In general, most cases in the United States are cared for by pediatricians and family practitioners, while child psychiatrists tend to see refractory cases and those with significant co-morbidity.

Community-based studies have been done in fairly divergent populations. A national survey of US teachers²⁷ found 2.5% to 4.0% of children meeting DSM-III-R criteria for ADHD. Lindgren²⁸ studied Iowa school children, finding that rates increased from 2.8% for attention deficit disorder with hyperactivity (ADHD) with DSM-III criteria, to 6.1% ADHD with DSM-III-R criteria when these were applied to the same sample. Particularly high rates were found in a small, inner-city population by Newcorn and colleagues,²⁹ 12.9% ADHD (DSM-III) and 18.9% ADHD (DSM-III-R). Two point six percent were found in one Pittsburgh primary care pediatric sample.³⁰

Anderson and colleagues³¹ interviewed a community sample of 792 11-year-old children (and parents and teachers) in New Zealand, applying DSM-III criteria. They found an overall prevalence of 6.7%, with a 5:1 male-to-female ratio. A similar study in Puerto Rico³² also used DSM-III criteria. The authors carried out a two-stage assessment (screening followed by clinician interview) in over 2,000 households. They found a six-month "definite ADHD" prevalence of 9.5% (met criteria plus Childhood Global Assessment Score [CGAS] <61) and an additional "probable ADHD" prevalence of 6.6% (met criteria and CGAS 61-70).

Two more recent community studies in Germany³³ (1,077 subjects) and Tennessee³⁴ (8,000+ subjects) utilized DSM-III-R and DSM-IV criteria. Both drew samples and made diagnoses largely on teacher reporting. The Tennessee prevalence rates increased from 7.3% with DSM-III-R criteria to 11.4% with DSM-IV. A similar difference was seen in Germany between DSM-III (9.6%) and DSM-IV (17.8%) prevalence.

These results suggest that across fairly diverse

populations (geographically, racially, socioeconomically), there exists a sizeable percentage of school-aged children with ADHD. It is clear from these studies that the prevalence of children with ADHD is in large measure a function of the particular diagnostic criteria actually used and the way in which they are applied by researchers in the field. The evolution of criteria from DSM-III to DSM-IV has been based on a progressively larger empirical base.³⁵ These changes, however, have broadened the case definition, so that more children appear to be affected. This is largely a function of the increased emphasis on attentional problems as opposed to a more narrow focus on hyperactivity in earlier diagnostic sets. As a result, girls have been more commonly diagnosed with ADHD than they were in the past.³⁶ Overall, the studies suggest that about 3 % to 6% of the school-age population is affected.

Illness course and co-morbidity of ADHD

Until the past decade it was fairly commonly accepted that children "grew out of" ADHD by adolescence or perhaps even earlier. However, longer-term follow-up studies of children with ADHD as well as "lookback" studies of symptomatic adults who can be retrospectively diagnosed as having had childhood ADHD show that there is indeed symptomatic persistence into adulthood in many cases. There is an exponential decay of syndrome persistence from age 10 to 25, with a $t_{1/2}$ of about 5 years. Hyperactivity itself declines more quickly than impulsivity or inattentiveness.^{37,38}

An important consideration in ADHD is its effect on subsequent development in a particular child. The disturbances seen, for example, in early childhood, may have pronounced consequences in later grade school years and beyond. In general, when ADHD is untreated there is a gradual accumulation of adverse processes and events that increase the risk of serious psychopathology later in life.³⁹ Whether this can be reversed by long-term treatment remains unknown.

A number of psychiatric conditions co-occur with ADHD, in particular excess rates of conduct disorder, oppositional defiant disorder (ODD), and mood and anxiety disturbances. Ten percent to 20% of children with ADHD in both community and clinical samples have mood disorders, 20% have conduct disorders, and up to 40% may have ODD.⁴⁰ Bipolar disorder is being increasingly recognized.⁴¹ Only about 7% of those with ADHD have tics or Tourette's syndrome, but 60% of those with Tourette's have ADHD, raising questions about

common etiologic mechanisms. Learning disorders (especially reading disorder) and subnormal intelligence also are increased in the total population of those with ADHD and vice versa.^{42,43} Overall, perhaps as many as 65 % of children with ADHD will have one or more co-morbid conditions, although their presence will not be recognized without appropriate questioning and evaluation.⁴⁴

The relationship between substance use disorders and ADHD is complex. Children with ADHD who do not have co-morbid conditions have a risk of substance use disorders that is no different from children without ADHD up to about age 14. The risk of developing substance use disorders in those with ADHD is increased in adolescents, and the risk ratio increases further in adulthood, regardless of whether or not there is co-morbidity. Persistence of ADHD symptoms and family history of both ADHD and substance use disorders are risk factors for their development. Highly potent risk factors are the presence of co-morbid conduct disorder or bipolar disorder. There is debate about whether aggressive long-term treatment of ADHD may decrease the risk of subsequent development of substance use disorders.⁴⁵

Many children with ADHD also exhibit an inability to recognize social cues ("lack of social savoir faire"), leading to impaired interpersonal relations as well.¹⁵ In general, conduct disorder and ODD are thought to be more commonly seen co-morbidities in psychiatric samples, while learning disorders are more the rule in pediatric ones. In one pediatric setting, there was a 15% rate of co-morbidity.⁴⁶

One prospective study, which followed an ADHD cohort over an average of 16 years along with a matched control group, found an 11-fold (11 % vs 1 %) increase in ongoing ADHD symptoms, a 9-fold increase in Antisocial Personality Disorder (ASPD; 18% vs 2%), and a 4-fold (16% vs 4%) higher rate of drug use disorder.⁴⁷ The strongest predictors of persistence of psychopathology are co-morbidity and family history of ADHD.⁴⁸

Treatment of ADHD

There has been 60 years of clinical experience with psychostimulants in children.⁴⁹ Created in 1955, methylphenidate eventually replaced dextroamphetamine as the most commonly used agent, and it now accounts for more than 90% of the stimulant use in ADHD in the United States. A racemic mixture of amphetamines (Adderall), dextroamphetamine itself (Dexedrine and others), and pemoline (Cylert) is also used.

Methylphenidate is strongly favored by US physicians, largely because the overuse of amphetamines for treatment of obesity and their misuse in the 1960s gave that class a reputation as more problematic than methylphenidate.

There have been more than 170 studies involving more than 6,000 school-aged children using stimulant medication for ADHD. The response rate for any single stimulant drug in ADHD is approximately 70%, and up to 90% of children will respond to at least one stimulant without major adverse events if drug titration is done carefully. A "response" in this context means a statistically or clinically significant reduction in hyperactivity or increase in attention as rated by parents, teachers, and/or research raters. There have been, by contrast, only about a half-dozen studies each in pre-school children and adolescents.^{50,51}

Medications have been unequivocally shown (i.e., by double-blind, placebo-controlled studies) to reduce core symptoms of hyperactivity, impulsivity, and inattentiveness. They help classroom behavior and academic performance; diminish oppositional and aggressive behaviors; promote increased interaction with teachers, family, and others; and increase participation in leisure time activities. Finally, stimulants have demonstrated improvement in daydreaming, irritability, anxiety, and nailbiting.⁵² A recent meta-analysis found that the effect size (magnitude of change in the variables under study) of stimulants on behavior and cognition has averaged 0.8 to 0.9 across many studies, while the effect size on academic achievement has been in the range of 0.2 to 0.5.⁵³

Contrary to earlier assertions, the response to stimulant medications in those with ADHD is not "paradoxical." The direction of changes in behavioral measures in those with ADHD, those with conditions other than ADHD (e.g., learning disabilities, depression), and normal controls is the same. Thus a favorable response to stimulants does not confirm a diagnosis of ADHD (nor of course does a nonresponse refute the diagnosis). There is a nonspecific performing-enhancing affect. This may mask other problems and delay use of other interventions.^{54,55} Protocols have been developed to assess medication efficacy for individual patients in a controlled, blinded manner in both specialty research settings⁵⁶ as well as in a general pediatrics practice setting.⁵⁷

Thus stimulants have an important, albeit nonexclusive, role to play in treating ADHD. The Canadian Pediatric Society stated in its 1990 consensus statement: "We confidently endorse the

use of this drug [methylphenidate] as a safe and effective adjunct to the psycho-educational management of children with attention deficit hyperactivity disorder."⁵⁸

In addition to their value in childhood and adult ADHD, methylphenidate and other stimulants may play a role in the treatment of other medical conditions. They have been used for treatment of narcolepsy, as a short-term treatment of depression in the medically ill, as potentiating agents with conventional antidepressants for major depressive disorder, as potentiating agents with opiates for pain control, and to reduce apathy in dementia and some other brain diseases.⁵⁹⁻⁶¹ The number of patients receiving these drugs for these indications is unknown, but they probably represent no more than a few percent of all US stimulant use. Stimulants are not indicated for the treatment of obesity.

For patients with ADHD who are intolerant of or unresponsive to stimulants, a number of other drugs have proven useful in clinical practice. Tricyclic antidepressants, particularly imipramine, were effective in reducing ADHD symptoms in 45 studies involving over 1,000 children. Acute side effects (sedation, anti-muscarinic symptoms, orthostatic hypotension, weight gain) and, in particular, concerns about potential cardiac conduction problems have, however, reduced the use of these drugs in recent years. Bupropion, a newer antidepressant that blocks the reuptake of norepinephrine and dopamine, has considerable promise.⁶² Serotonin-specific reuptake inhibitors (SSRIs) have not been shown effective to date.⁵¹

Centrally-acting alpha-blocking drugs (clonidine, guanfacine) have been helpful in some children, but data are still limited. Sedation and hypotension may occur, and these drugs appear to be somewhat less efficacious than the other drugs already mentioned.^{63,64} Subsets of children seem to have some response to lithium carbonate,⁶⁵ raising questions about the possible relationship between ADHD and bipolar disorder. Occasionally 41 Neuroleptic medication is effective, but the risk of tardive dyskinesia makes this a problematic long-term approach.¹⁴ By contrast, some 20 studies have refuted the efficacy of dietary manipulations (e.g., the Feingold diet) in ADHD.⁶⁶

It is important to emphasize that pharmacotherapy alone, while highly effective for short-term symptomatic improvement, has not yet been shown to improve the long-term outcome for any domain of functioning (classroom behavior, learning, impulsivity, etc.). This may be a function of several factors: most studies have been carried out only for a short term, there may have been

inadequate dosage titration to maximize the number of responders, and dose-response relationships may be different for different domains.⁶⁷⁻⁶⁹

Swanson published a careful review of all review studies of stimulant use in children in 1993.⁵³ He found overwhelming evidence for temporary improvement of core symptoms (hyperactivity, inattention, and impulsivity) as well as the associated features of defiance, aggression, and negative social skills. On the other hand, changes that point toward longer-term improvement (e.g., in academic outcome, antisocial behavior, or arrest rate) were not found, and only small effects were observed on learning and achievement.

Multi-modal therapy, i.e., integrating pharmacotherapy with a number of environmental, educational, psychotherapeutic, and school-based approaches, is a tailored approach that seems intuitively powerful, matching the child's particular problems to selections from a menu of focused treatment interventions. Multi-modal therapy has been shown in a few studies to affect long-term results, although how applicable these findings are beyond research settings remains unclear.^{69,70} While three-quarters of treatment review papers assert that multi-modal therapy is superior to medication or psychosocial interventions separately, there is in fact little empirical evidence to support such a conclusion.⁵³

Some of the nonmedication approaches include: parent education; parent management training (contingency management in individual or group setting): this technique decreases disruptive behavior, increases parents' self-confidence, and decreases family stress; classroom environmental manipulations (special class, seating in class, etc); contingency management and daily report cards by teacher; individual psychotherapy for depression, anxiety, low self-esteem; impulse and social skills control training; support groups such as Children and Adults with Attention Deficit Disorder (CHADD) and Attention Deficit Disorder Association (ADDA) for families; and summer treatment programs.^{15, 71}

Some experts feel that stimulants alone may be adequate for cases of ADHD without comorbidity, but that additional treatments are necessary where there are co-occurring conditions. Behavioral therapy has not proved effective alone, although it has been when combined with pharmacotherapy.¹ Since psychosocial treatments may be labor-intensive and expensive, it is important to establish when and which treatments are indicated. A large multi-site study is currently

being carried out by the National Institute of Mental Health to try to clarify the role of multi-modal treatment: carefully evaluated children will be randomized to receive standard community care, medication alone, psychosocial treatments alone, or multi-modal therapy (medication and psychosocial treatments together).⁶⁹⁻⁷²

It is also important to take parental and children's preferences into account in the development of a treatment plan. A specialty clinic for ADHD that surveyed parents with children in treatment there found that behavior modification was the most acceptable treatment, followed by behavior modification with pharmacotherapy, and pharmacotherapy alone the least acceptable.⁷³

While there are a number of textbooks^{1,14} and many review articles^{51,74,75} available to practitioners, practice parameters covering the major diagnostic and treatment issues are in development. An earlier version of the Academy of Child and Adolescent Psychiatry's guidelines⁷⁶ are being revised and will be out soon. A recent American Academy of Pediatrics position paper emphasizes the need for careful evaluation and monitoring of children with ADHD, and it stresses that drugs be used as part of an overall care plan.⁷⁷

Adverse effects of stimulants

Adverse effects from stimulants are generally mild, short-lived, and responsive to dosing or timing adjustments. The most common effects are insomnia, decreased appetite, stomachache, headache, and jitteriness. Some children will exhibit motor tics while on stimulants: whether this reflects a true drug effect or an "unmasking" of a latent tic disorder is unknown. A small percentage of children experience cognitive impairment that responds to dosage reduction or drug cessation. Pemoline has been infrequently associated with hepatic toxicity, so periodic monitoring of liver enzymes is necessary. Rare cases of psychosis have occurred.^{14,50}

Concerns had been raised about the effects of chronic stimulant ingestion on growth and development. There is little evidence to support the notion that growth is impeded, and it is fairly clear that children's heights are not affected by long-term use of these medications even if use is continuous.⁷⁸⁻⁸⁰

A great deal of concern has been raised by the Drug Enforcement Administration (DEA) and others about the potential for abuse or diversion of stimulant medication: production (and use) of methylphenidate in the United States has risen from under 2,000 kg in 1986 to 9,000 kg in 1995, with a tripling in the period 1990 to 1995 alone. By

contrast, amphetamine production rose from 400 to 1,000 kg in the same period. More than 90% of the methylphenidate in use worldwide is prescribed in the United States. Canada is the second highest user in the world, and an estimated 2.5 % of Canadian children receive stimulants. More than 90% of US-produced methylphenidate is used in the United States, while the United Kingdom and Switzerland produce the remainder used throughout the world. While there were only two US manufacturers of methylphenidate for many years, three more companies have applied for permission to produce the drug, and four more have recently expressed an interest. This likely presages further large annual increases in production and use.⁸¹

The reasoning for the concern about possible overproduction of methylphenidate has been expressed as follows: stimulants at times are abused by adolescents and adults; those with ADHD are at increased risk of developing a substance use disorder; methylphenidate and other stimulants may either become the drug abused by those with ADHD, or they may serve as a "gateway" to other drug use; and even if they do not abuse their medication themselves, children and adolescents with access to stimulants will be under pressure to divert their medication to those who will.

There is little disagreement that stimulants as a class have marked abuse potential, and their misuse can have severe adverse medical and social consequences. However, stimulants differ in their ability to induce euphoria and thus liability to abuse. Almost all of the reports of abuse of methylphenidate itself have been of polysubstance-abusing adults who have tried to solubilize the tablets and inject them (with disastrous results from talc granulomatosis in some cases).⁷⁵ This last problem in particular led Sweden to withdraw methylphenidate from the market in that country entirely in 1968.⁸²

It is clear that there is a fair amount of use of stimulants by adolescents. The annual school survey of drug use conducted by the University of Michigan has shown an increase from 6.2% to 9.9% of 8th graders reporting nonmedical stimulant use in the preceding year between 1991 and 1994. However, the use of lifetime nonmedical methylphenidate use has remained essentially constant around 1% during the same period. Sixty percent of students who used any stimulants reported using them fewer than six times in their lifetime, 80% fewer than 20 times. Only 4% reported any injection use of stimulants.⁸¹ Thus while nonmedical stimulant use may be somewhat more widespread among adolescents in recent years, little use is of methylphenidate itself, and

the pattern of use for the vast majority appears to be experimental and not of the type (regular, heavy, intravenous, etc.) likely to lead to serious adverse consequences.

The Drug Abuse Warning Network (DAWN) data of emergency department (ED) visit monitoring show a 6-fold increase between 1990 and 1995 in mentions of methylphenidate. A "mention" simply indicates that the patient listed the drug as one taken; it is not necessarily the drug leading to the ED visit, nor is there any medical confirmation. The rate of cocaine "mentions," by contrast, is 40 to 50 times higher. The methylphenidate cases are overwhelmingly young adult females, not the population (i.e., adolescent males) about whom concern had been expressed. The DEA has had reports of thefts of methylphenidate, street sales, drug rings, illegal importation from outside of the United States, and illegal sales by health professionals. There have also been reports of theft of school supplies of methylphenidate.⁸¹

On the other hand, abuse of methylphenidate by patients with ADHD or their family members has been reported rarely. Only two cases of methylphenidate abuse by adolescents with ADHD have been described,^{83,84} and only two cases of methylphenidate abuse by parents of children taking it for ADHD have been reported.⁸⁵ While there is no way to know how many cases may have been unrecognized or unreported, such a minimal published experience is quite remarkable in light of the population exposed.

Under Section 306(a) of the Controlled Substances Act, production limitations of methylphenidate, a Schedule II drug, are established by the Attorney General (using information developed by the DEA). The Attorney General also receives input from the Secretary of Health and Human Services (using information provided by the Food and Drug Administration [FDA]). In 1988 a DEA administrative law judge ruled that the method used by the DEA in 1986 to calculate methylphenidate production quotas failed to provide for legitimate medical need, leading to several policy changes. In 1993 there were some methylphenidate shortages because of a delay in publishing proposed quotas in the *Federal Register*, leading to a streamlining of the procedures for final quota notice approval.⁸¹ AMA policy was adopted at the 1993 Interim Meeting (100.975, *AMA Policy Compendium*) calling on the AMA to work with the DEA and FDA to ensure adequate supplies of methylphenidate and other Schedule II drugs.⁸⁶

Current practices

It is clear from the discussion of diagnostic assessment that ADHD simply cannot be diagnosed in a typical 15-minute primary care office visit. Taking the necessary multiple histories, performing a careful examination, and obtaining appropriate testing will require several visits and may require utilization of a multi-disciplinary team approach and/or specialty consultation in some cases. Some observers have questioned whether managed care financial pressures will make it more difficult to obtain such careful assessments and to allow treatments other than pharmacotherapy. Nonetheless, there have been descriptions about providing such assessments in typical pediatric settings.^{12,46} There are few data on actual practice habits in terms of what diagnostic criteria (if any) are used by clinicians, how they are applied, or exactly what a minimally satisfactory level of investigation entails.

A national survey of physicians⁸⁷ found that 5.3 % of elementary school children in pediatrics practices were diagnosed with ADHD and 4.2% by family practitioners. When explicit DSM-III-R criteria were used, however, only 72% of those assigned a diagnosis of ADHD by their physicians would have received the diagnosis based on a structured interview. Only 53 % of the physician diagnoses included teachers' reports. Eighty-eight percent of the physician-diagnosed children were prescribed methylphenidate, and 85% of the parents reported that the medication was helpful. Only 22 % of the parents reported treatment with behavioral modification, and in 70% of those cases that modality was recommended by someone other than the treating physician. Eleven percent received counseling from the physician, and no parents queried judged it effective. The authors of this survey drew attention to the mismatch between physician diagnosis from a single source, often an unreliable one, and the use of stimulant medication. They also stressed the low rates of use of nonpharmacologic treatment by their physician sample.

Safer and Krager⁸⁸ conducted regular surveys of school nurses in Baltimore county to look for methylphenidate prescribing. They found that 6% of the school-aged children received this treatment and that methylphenidate accounted for over 90% of the pharmacological treatment provided for ADHD. A 1992 study found that 1.9% of Michigan boys were receiving methylphenidate.⁸⁹

There is evidence to suggest that stimulants in ADHD populations are simply being used more broadly, for longer periods, and without interruptions in recent years than was done

previously. Many US physicians were taught to discontinue stimulants at age 12, but with newer evidence about the persistence of the disorder, prescribing for adolescents and adults has been increased. The more recent emphasis on inattention as well as hyperactivity in ADHD has also led to increased recognition and thus stimulant treatment for girls. Overall, there has been a 2.5-fold increase in the prevalence of child and adolescent methylphenidate treatment from 1990 to 1995, so that some 2.8% of US youth between the ages of five and 18 were taking this medication in mid-1995. A recent national study finds no evidence of over-diagnosis of ADHD nor over-prescription of methylphenidate.⁹⁰

Several of the community studies discussed above also looked at which children diagnosed with ADHD by researchers had been so diagnosed by clinicians or were receiving treatment. In the New Zealand sample, 43 % of the children found to have ADHD by the researchers had been referred for medical care for this problem.³¹ In the Tennessee study, only 15% to 40% of the children diagnosed by researchers with ADHD had been so diagnosed clinically, and only 21 % to 32 % were receiving pharmacotherapy.³⁴

Swanson et al⁹¹ addressed the increase in US methylphenidate usage by showing that from 1990 to 1993 the number of patients diagnosed with ADHD increased from 900,000 to 2,000,000, and the number of outpatient visits for the condition rose from 1.7 million to 4.2 million. The percentage of cases given methylphenidate remained around 70%. Thus the amount of methylphenidate produced per 1,000,000 patients increased from 1.98 gm to 2.53 gm, a 27% increase.

Thus there are several important clinical reasons for the increased diagnosis and stimulant treatment of ADHD. These include: increased public and physician awareness and acceptance of the condition; acceptance of a broader case definition as being appropriate; greater knowledge of the illness course, justifying lengthier treatment (e.g., of adolescents); fewer interruptions in treatment because of diminished concerns about growth retardation; and greater treatment of adults.

Finally, with regard to cross-national data, there is some consensus that most non-US clinicians are more likely to rely on older, more stringent diagnostic criteria, reserve the diagnosis for only the most obvious or severe cases, or even be reluctant to diagnose ADHD at all. Physicians from countries with strong psychoanalytic traditions may be particularly reluctant to employ discrete diagnostic criteria at all. Physicians in the United Kingdom (UK), for example, tend to use a DSM-

II approach, so they place more emphasis on hyperactivity and therefore diagnose ADHD far less frequently than their US counterparts. When UK physicians are instructed in applying US criteria, however, they diagnose ADHD in UK children as often as their United States counterparts do in US children. Thus the apparent discrepancy is more a matter of case-recognition than actual prevalence. Canadian physicians, who tend to use later DSM criteria, diagnose and treat children at rates similar to those seen in the United States.⁴⁰

Conclusions

1. Attention deficit-hyperactivity disorder (ADHD) is a childhood neuropsychiatric syndrome that has been studied extremely thoroughly over the past 40 or so years. Available diagnostic criteria for ADHD are based on extensive empirical research, and if applied appropriately, lead to the diagnosis of a syndrome with high inter-rater reliability, good face validity, and high predictability of course and medication-responsiveness. ADHD is one of the best-researched disorders in psychiatry, and the overall data on its validity are far more compelling than for most mental disorders and even for many medical conditions. Nonetheless, the pathophysiology of ADHD remains unknown, although a number of neurophysiological theories are under investigation. ADHD demonstrates a very high heritability.
2. The diagnostic criteria are designed to be employed by a clinician familiar with childhood development and behavioral disorders. Application of the diagnostic criteria requires time and effort to obtain a careful history from parents, teachers, and the child. As with almost all mental disorders, there is as yet no confirmatory genetic, radiologic, biochemical, neurophysiologic, or neuropsychological test for ADHD, but such examinations may be helpful at times in evaluating presenting complaints suggestive of ADHD.
3. ADHD is associated with significant potential co-morbidity and functional impairment, and its presence at any age increases the risk of behavioral and emotional problems at subsequent stages of life. It is thus a chronic illness with persistence common into adolescence and beyond.
4. Epidemiologic studies using standardized diagnostic criteria suggest that 3 % to 6%

of the schoolaged population may suffer from ADHD. A few studies have suggested a somewhat lower prevalence, but others, particularly those using newer, broader criteria, yield prevalences well above 6 %. These studies have been conducted in a number of different countries and encompass a range of racial and socioeconomic backgrounds in the populations examined.

5. The percentage of US youth being treated for ADHD is at most at the lower end of this prevalence range. More cases of ADHD are being recognized and treated, and the duration of treatment is increasing. However, ADHD is also diagnosed inappropriately at times because of failure to do a thorough enough evaluation or to use established diagnostic criteria.
6. Pharmacotherapy, particularly stimulants, have been extensively studied. Medication alone generally provides significant short-term symptomatic and academic improvement, but response to stimulant medication is not specific to ADHD, and it is currently unknown whether long-term outcomes will be altered. The risk-benefit ratio of stimulant treatment in ADHD must be evaluated and monitored on an ongoing basis in each case, but in general is highly favorable.
7. Optimal treatment of ADHD involves an individualized plan based on any comorbidity as well as child and family preferences. This treatment generally will include pharmacotherapy (usually with stimulant medication) along with psychoeducation, behavioral therapy, environmental changes, and at times, supportive psychotherapy of the child and/or family. Nonpharmacologic treatment modalities are well-accepted by parents and probably significantly under-utilized in primary care settings.
8. There should be documentation in the medical record showing evidence that appropriate diagnostic criteria for ADHD have been met, that common co-morbid conditions have been assessed, that there is a clear treatment plan, and that there is appropriate follow-up, including medication monitoring for efficacy, adverse effects, and ongoing need.
9. There is little evidence to suggest that stimulant abuse or diversion is currently a major problem, particularly among those with ADHD, although recent trends suggest

that this could increase with the expanding production and use of stimulants. Clinicians need to be mindful of the risk of abuse and diversion. In addition to keeping careful records of medication prescribed, they may consider alternatives to stimulant use in patients at high-risk (e.g., patient or family members with substance use disorders or bipolar or conduct disorder co-occurrent in the patient).

Recommendations

The Council on Scientific Affairs recommends that the following statements be adopted and that the remainder of this report be filed:

1. That our AMA encourage physicians to utilize standardized diagnostic criteria in making the diagnosis of ADHD, such as the American Psychiatric Association's DSM-IV, as part of a comprehensive evaluation of children and adolescents presenting with attentional or hyperactivity complaints.
2. That our AMA encourage the creation and dissemination of practice guidelines for ADHD by appropriate specialty societies and their use by practicing physicians and assist in making physicians aware of their availability.
3. That our AMA encourage efforts by medical schools, residency programs, medical societies, and continuing medical education programs to increase physician knowledge about ADHD and its treatment.
4. That our AMA encourage the use of individualized therapeutic approaches for children diagnosed with ADHD, which may include pharmacotherapy, psychoeducation, behavioral therapy, school-based and other environmental interventions, and psychotherapy as indicated by clinical circumstances and family preferences.
5. That our AMA encourage physicians and medical groups to work with schools to improve teachers' abilities to recognize ADHD and appropriately recommend that parents seek medical evaluation of potentially affected children.
6. That our AMA reaffirm Policy 100.975 to work with the FDA and the DEA to help ensure that appropriate amounts of methylphenidate and other Schedule II drugs are available for clinically warranted patient use.

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APPENDIX

Diagnostic Criteria for Attention-Deficit/Hyperactivity Disorder⁹

A. Either (1) or (2):

(1) inattention: six (or more) of the following symptoms of inattention have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level:

- (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- (b) often has difficulty sustaining attention in tasks or play activities
- (c) often does not seem to listen when spoken to directly
- (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
- (e) often has difficulty organizing tasks and activities
- (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- (g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
- (h) is often easily distracted by extraneous stimuli
- (i) is often forgetful in daily activities

(2) hyperactivity-impulsivity: six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least six months to a degree that is maladaptive and inconsistent with developmental level:

- (a) often fidgets with hands or feet or squirms in seat
- (b) often leaves seat in classroom or in other situations in which remaining seated is expected
- (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- (d) often has difficulty playing or engaging in leisure activities quietly
- (e) is often "on the go" or often acts as if "driven by a motor"

- (f) often talks excessively
- (g) often blurts out answers before questions have been completed
- (h) often has difficulty awaiting turn
- (i) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age of seven years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Code based on type:

314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type: if both Criteria A1 and A2 are met for the past 6 months

314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if Criterion A1 is met but Criterion A2 is not met for the past 6 months

314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type: if Criterion A2 is met but Criterion A1 is not met for the past 6 months

Coding note: For individuals (especially adolescents and adults) who currently have symptoms that no longer meet full criteria, "In Partial Remission" should be specified.

Medicine, A Moral Crisis

James D. Green, MD

The practice of medicine in times past focused on the totality of the patient as an individual. It represented a unity of several disciplines which were all dedicated to the healing of disease and the betterment of the patient. This is spelled out in the Hippocratic oath to which all physicians commit themselves. The oath stipulates "I will use treatment to help the sick according to my ability and judgment but will never with a view to any injury or wrong doing" and "I will abstain from all intentional wrong doing."

In the recent past, a fractionating of medical care has occurred, forcing a severe strain on the traditional doctor/patient relationship. This has occurred because of the selfish and unscrupulous interests of insurance companies and cooperative doctors. This has distorted the goal of medicine. Medicine has become not an altruism to them but a profit-making business.

With this paradigm shift, medical care itself has suffered. People are questioning the basic motivations of doctors. The compassion of medicine itself is in jeopardy. The traditional relationship between doctor and patient, long held in high regard, is disappearing in this new medicine.

What now appears is a system in which the patient is no longer viewed as a person but as a computer number to insurance companies. The doctor's office call has become expendable. We are seeing the loss of morality in medicine. Something has happened to the soul of medicine. Something has happened to the conscience of doctors.

It is long overdue for someone to address the issue at heart. Is it not immoral to treat patients with indifference when their problems and needs cry for a listening sympathetic ear? Is it not immoral to treat patients with programmed medical care designed to ration care and to minimize doctor/patient contact? Is it not immoral to treat patients with full knowledge of gag rules governing the patient? It would seem that the modern sense of commitment to the healing cause has come under suspicion and rightfully so.

It would be easy to look with indifference into the devastating changes which are tearing at the very heart of medicine — the doctor patient relationship. One is compelled to speak out, howev-

er, when one is personally involved in this great struggle. I have practiced internal medicine for over 36 years (34 in Tulsa), and I have seen this change come about in recent years. It is disheartening to know that many patients are coming into this "new medicine" without ever having known a trusting physician relationship.

This relationship is the "Gold Standard" of medicine. Everything the physician does for the patient is based on a mutually understood trust. When that is undermined, the quality of medical care is affected and the patient suffers as a result.

It is not my purpose to single out specific groups, but to emphasize the inherent danger there is in this "new medicine."

At a time when alternative medicine is showing remarkable gain in areas, the credibility of modern medical practice has come under scruti-

Ed. Note: This article was published in the *Tulsa World* November 30, 1997 and the *AMA News* January 1998.

PRESIDENT'S MAIL

Every Oklahoma legislative session has come to be characterized by intense and vigorous interaction between the Oklahoma State Medical Association and legislators shepherding their medical bills. The OSMA for many years has also sponsored a "Medicine Day at the Capitol" about the first of April. This year, the OSMA campaigned most diligently in an attempt to defeat SB 1192, the optometry surgery bill. When the bill passed and was signed into law by Governor Keating, the President's mail contained the following interesting letters.

THE OKLAHOMA STATE MEDICAL ASSOCIATION

*Promoting the Science and
Art of Medicine Since 1906*

March 17, 1998

The Honorable Frank Keating
212 State Capitol Building
Oklahoma City, Oklahoma 73105

Dear Governor Keating:

The Oklahoma State Medical Association (OSMA) has decided to cancel our planned "Medicine Day At The Capitol" event which was to be held April 1, 1998.

Because of your signing and apparent endorsement of SB 1192, we do not believe any of our 5,000 member physicians desire to participate.

We appreciate your prior commitment to address our group.

Sincerely,

David M. Selby, MD
President
Oklahoma State Medical Association

Frank Keating
Governor
March 23, 1998

Dr. David M. Selby, President
Oklahoma State Medical Association
601 West I-44 Service Road
Oklahoma City, OK 73118-6073

Dear Dr. Selby,

I am sorry you have chosen to cancel the Medicine Day program for 1998. While I know many of your members are disappointed in the passage of SB 1192, I have to say quite bluntly that taking an approach that implies "we didn't win, so we'll just go home" is counter productive. If the controversy over SB 1192 proved anything it is that lawmakers are poorly equipped to decide such technical issues. They need the expertise of our medical professionals.

As you know, I met on two separate occasions with representatives of both the optometrists and the eye physicians who took very different positions on this bill. The Constitution says that if the Legislature passes a bill, I must do one of three things with it: sign it, veto it or take no action, which results in it becoming law after a brief waiting period. When this bill first surfaced I did not believe that state government ought to be so intimately involved in what was clearly a scope of practice issue involving two medical professions. I continue to believe that, but when the bill passed both houses of the Legislature by large (and veto-proof)

majorities, I sought to hear both sides as completely as possible — including scheduling sessions with both sides at the Mansion on the Saturday prior to the Monday signing deadline.

In the end, I dealt with two undeniable facts: First, that the opponents of the bill did not present material evidence or information that it was bad for Oklahoma, and second, that my veto would almost certainly be overturned in both houses.

After I signed the bill I wrote the president of the Board of Examiners in Optometry asking that he organize a joint optometrist-physician committee to examine and establish training and residency requirements in laser surgery for optometrists. I believe these two professions should now set aside their differences on this bill and cooperate to assure that it is implemented in ways that will assure the best possible eye care for Oklahomans.

I hope you will reconsider and schedule future Medicine Day programs. If you have any questions, comments, or suggestions, I want to hear from you and your members. Please feel free to contact my Chief of Staff, Mr. Ken Lackey, at any time about issues of concern to physicians.

Sincerely,
Frank Keating

David W. Parke II, M.D.,

President, Dean A. McGee Eye Institute
Edward L. Gaylord, Professor and
Chairman, Department of Ophthalmology,
University of Oklahoma

April 14, 1998

David Selby

President

Oklahoma State Medical Association
601 West I-44 Service Road
Oklahoma City, OK 73118

Dear David:

Now that we have approximately one month's perspective behind us following Governor Keating's signature of SB1192, let me share with you my thoughts pertaining to that bill's passage.

I will begin by stating the obvious—this bill is a disaster for all physicians in Oklahoma and throughout this country. SB1192 is not simply about allowing optometrists to expand their scope of practice into ophthalmology. It is about the trivializing and deprofessionalizing of the practice of medicine. It is about sliding away from a carefully developed and validated system of medical and surgical education to legislated authority awarded on nonscientific grounds. Optometrists are in general dedicated practitioners who have contributed to the health and well-being of our fellow citizens. Although a small number of optometrists have had some technical success in performing less complex laser surgical procedures, an educational chasm exists between the training of an optometrist and that of an ophthalmologist.

In the past decade, physicians have been increasingly scrutinized for their dedication to quality care, validated outcomes, rigorous credentialing, and a concern for "value" in an era of decreasing health care dollars. SB1192 is not consistent with this trend. Rather it expands scope of practice to a group of providers with less training and less experience—a group which has legislatively expanded its scope of authority without scientifically validating its capability, and to a group whose

past failure to credential is a matter of public fact. How does his bill improve quality outcomes or add value to the health care system? Our collective failure to stop legislation is a tragedy.

Judge Eugene Mathews ruled in favor of the State Board of Medical Licensure and Supervision in July, 1997 following five days of sworn testimony and inches of depositions taken under oath. In a strongly worded opinion, he did not rule that optometry was capable but not authorizes to do surgery. Rather, he states in his ruling, "In the opinion of the Court, a practitioner who lacks the training obtained in medical school and a residency in ophthalmology cannot remedy that deficiency by completing a 16-hour weekend course or a 24-hour weekend course and become sufficiently proficient to perform laser surgery... The risks of any surgical intervention are not limited by using a light knife, or laser, in place of a metal knife, or scalpel. Surgical intervention requires the medical training and judgment to recognize indications for the procedure and an appreciation for the risks attendant to the procedure versus the benefits..." It was inevitable that optometry would challenge this ruling.

During the interval between Governor Keating's receipt of the bill and his ultimate signature, he and his staff spoke and met with a number of physicians. They demonstrated a genuine receptiveness to the opinions expressed by all interested parties. Finally, Hal Balyeat, M.D. and I met with the Governor and Keith Biehl of his staff for approximately 45 minutes on Saturday, two days before the signature deadline. The Governor then met with representatives of optometry.

During two meetings with Governor and in letters to his office, physician representatives countered many of optometry's claims and presented a strong rationale to veto SB 1192. Information presented included:

1. The marked educational difference between optometry and ophthalmology. Ophthalmologists are physicians

first and specialists in diseases and surgery of the eye only after four and seven years of additional training. Many optometrists in Oklahoma have been credentialled to do laser surgery after having performed no cases on patients. Ophthalmology residents in Oklahoma perform an average 150 laser cases before completion of training. The shortcomings of optometric education with regard to surgery were supported by a letter from a former member of the NSU optometric faculty.

2. The inability of optometrists to manage many of the complications of laser surgery such as retinal detachment, intraocular hemorrhage, dislocated intraocular lens, etc.
3. Optometric inexperience in the entire process of surgical decision-making from preoperative patient selection to postoperative management.
4. Lack of any public health data to support a need for expanded scope of practice to "undeserved areas".
5. Sworn testimony proving that the State Board of Optometry had for four years credentialled untrained optometrists to do laser surgery on the basis of fraudulent statements that the optometrists had been credentialled by the American Academy of Ophthalmology with no attempt by the State Board to validate these claims.
6. Evidence that, contrary to its claims, the State Board of Optometry had taken no meaningful steps to monitor or evaluate optometrists' surgical experience.
7. Data to refute optometry's claim that because there had been no lawsuits reported to the State Board of Optometry, no lawsuits against optometry pertaining to lasers had been filed.
8. Data to refute a prominent optometrist's public claim that there had been no complications of optometric laser surgery.
9. Data to refute optometry's claim that optometrists in the VA system were performing laser surgery.
10. Emphasis that the language of SB 1192 would permit the State Board of Optometry unbridled capability to expand optometry's scope of surgi-

cal practice in the future without any oversight or opportunity to intervene by any other Board or agency.

Governor Keating's signature of SB1192 came as no surprise to me, Nor, I believe, to most other physicians actively involved in the advocacy effort. I was, however, seriously dismayed at his statements that as an "undeniable fact" he found no "material evidence or information" to veto the bill. I believe Governor Keating was provided with good material arguments to veto the legislation.

I wish Governor Keating had simply stated that he signed the legislation because his veto could not be sustained. I personally would have accepted this as a clear articulation of political reality, thus resulting in a political decision. That he chose to publicly state that medicine had failed to present cogent arguments I deem regrettable.

SB1192-clone bills will also appear in other state legislatures and possibly in Oklahoma for other paramedical organizations. Each will seek autonomy from scrutiny, oversight, or legal relief by State Boards of Medical Licensure. Paramedical groups will attempt to remake themselves to be minimally distinguishable from physicians. We have seen one manifestation here in Oklahoma where the Oklahoma Optometric Association has reconstituted itself as the "Oklahoma Association of Optometric Physicians."

Finally, this will not be, nor should it be, the final chapter of the SB1192 debate. These issues will be repeated many times, in many states. Remember that Oklahoma is now the only state in the country permitting optometrists to perform laser surgery.

As our culture changes, patterns of disease change, health care delivery systems change, and medical technology change, there should be a re-examination of scope of practice. If at some point incipient cataracts can be reversed by administration of an absolutely risk-free topical medication, it would make little sense for this to be the exclusive pur-

view of the ophthalmologists. If credentialing an appropriately trained and supervised practitioner group to perform a minor surgical procedure results in substantial public health benefit at no appreciable risk, this would appear logical. It is my opinion that ophthalmology specifically should not divide the delivery of eye care into immutably defined professions of ophthalmology, primary care physicians, optometry, opticianry, and pharmacy.

However, decisions regarding scope of practice must be based on keeping individual patient and societal public health needs at the forefront. To address these needs, we must carefully synthesize relevant data from numerous constituencies and submit it to rigorous scientific examination. Training and education must be commensurate with the expanded scope of practice. Supervision and credentialing must be performed with the input of the recognized experts in the field. A hasty political blessing by the legislative process serves only to trivialize and politicize issues which can have grave individual and public consequences.

This is not an ophthalmology and optometry issue. Scope of practice issues will affect every single physician. The effects will be differentially applied within medicine but the trivialization of our profession will impact all physicians, their families, and our communities. Medicine and medical organizations must act decisively and pro-actively to communicate their message to the general population. I agree with Governor Keating that "lawmakers are poorly equipped to decide such technical issues". Physicians must clearly differentiate themselves from paramedical providers and their organizations. They must act in a concerted fashion based on careful planning to articulate and propagate to patients, manages care organizations, politicians, and to the community a reasonable and scientifically validated framework for the delivery of health care based on proven capability.

Sincerely,

David W. Parke II, M.D.

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Award Winning Photos Needed!

It's a "picture perfect" opportunity to find your way into the spotlight — The Journal is looking for new photographs that might be candidates for its cover. Just ask William S. Harrison, MD....it can be a rewarding experience. Dr. Harrison's photo was selected for the May/June issue this past year, resulting in publication. At the Annual Meeting in April, he was the recipient of the "Best Journal Cover Photograph Award," after a judging of the previous year's covers.

Oklahoma physicians must take all submitted photos, with Oklahoma scenery as the primary interest of the Journal's editors. Please mail photos referenced with the photographer and a photo description to the Journal office at OSMA. Accompanying all photographs should be a written release authorizing the Journal to use the photo on its cover. Should you have any questions about the submission of any particular photo(s), please contact Leslie Turner-Lynch, 405/848-2171, for more information.





Hassle Factor Log

Oklahoma State Medical Association

Physician Name _____ Specialty _____

Address _____

City _____ State _____ Zip _____

Contact Person _____

Request in relation to: (circle one) Medicare Medicaid Workers Comp.

Managed Care Plan Commercial Ins.

Other: _____

Name of Carrier or Agency: _____

Time spent on problem: Staff time (hours) _____ Physician Time (hours) _____

Type of problem: (circle all that apply)

Denial of Preauthorization	Down Coding/Recoding of Claims	Excessive Telephone Hold
Denial of Referral	Requests for Copy of Medical Records	Pattern of Late Payment
Denial of Claim	Inaccurate Data Entry by Insurer	Requests for Operative Report
Delay in Payment	"Missing" Support Documents	Other Documentation Requests
Lost Claims	"Missing" Claim Information	Numerous Calls for Single Claim
Pre/Post Payment Review	Telephone Always Busy	Other (specify) _____

Brief description of the problem:

***Important:** The Oklahoma State Medical Association is attempting to document and tabulate "Hassles" by third party payors. We ask that you make multiple copies of this log and have your office staff/billing personnel fill one out for each instance. After we have accumulated a sufficient number to demonstrate a pattern by third party payors, we will contact them and ask for resolution of the problem. However, we need specific documentation of the incidents and hope that you will help us so we can confront the insurance companies with these "Hassles."

Mail or fax responses to the OSMA Headquarters at fax 405-842-1834 or mail to 601 W I-44 Service Road, Oklahoma City, Oklahoma 73118

Two Physicians Among 1998 Oklahoma Hall of Fame Honorees

W. French Anderson, MD, and Donald L. Cooper, MD, Selected

Six outstanding Oklahomans will be inducted into the Oklahoma Hall of Fame on Wednesday, Nov. 19, 1998, at the Performing Arts Center in Tulsa. Two of these distinguished individuals are physicians – W. French Anderson, MD, and Donald L. Cooper, MD.

A Tulsa native, Dr. Anderson is an internationally recognized pioneer in gene therapy. He currently serves as director of the Gene Therapy Laboratories and professor of Biochemistry and Pediatrics at the University of Southern California School of Medicine.

Dr. Anderson's research goals include developing advanced gene therapy delivery systems and to develop gene therapy clinical protocols to treat diseases such as cancer, genetic diseases, AIDS, and cardiovascular diseases. Gene transfer technology may also be helpful in addressing a range of problems in immunology, including transplantation biology, cancer immunal therapy, and autoimmune diseases.

Dr. Anderson has authored or co-authored more than 200 articles and four books. His numerous recognitions have included finalist, 1995 Jefferson Award for "Greatest Public



W. French Anderson, MD

Service by a Private Citizen," American Institute for Public Service; the King Faisal International Prize in Medicine; and the National Hemophilia Foundation Dr. Murray Thelin Award.

Dr. Cooper is an internationally-honored pioneer in sports medicine and a leader in the effort to combat drug abuse among young people. He joined the faculty at Oklahoma State University in 1960, served as the physician for all OSU athletic teams, and until 1990, he served as director of athletic medicine. He retired in May of this year.

Among Dr. Cooper's many "firsts" are the following: first Oklahoma medical doctor on the President's Council on Physical Fitness and Sports; first Oklahoma physician to be team medical doctor for the US Olympic team; the only Oklahoma physician to be a Charter Member of the NCAA Committee on Drug Education; only Oklahoma physician to receive the Bill Coltrane Memorial Award for Educational Efforts to Combat Drug Abuse; and the only Oklahoma physician to receive the Edward Hitchcock Award in recognition of outstanding contributions to the fields of college health and sports medicine. Cooper chaired the first Soviet-American Conference on Student Health and was selected one of the Top Ten Healthy American Fitness Leaders by All-State and the Junior Chamber of Commerce in 1995.

Dr. Cooper has appeared on network television programs and has represented the United States at major international conferences.



Donald L. Cooper, MD

Nancy Dickey, MD, and Mary Anne McCaffree, MD, Address the Media at OSMA's Annual Meeting

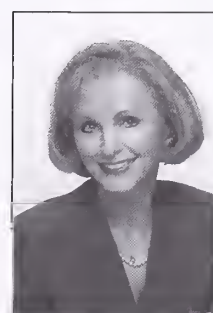
Regarded as "trailblazers" by the Daily Oklahoman, Drs. Dickey and McCaffree made quite an impression on Oklahomans. AMA's first woman president-elect and OSMA's first woman president together had a lot to say about the practice of medicine, as they addressed the media at the Annual Meeting of the House of Delegates in April.

Dickey spoke about increasing restrictions on physicians and accusations of fraud in the health care system. "The AMA is opposed to the criminalization of medicine," said Dickey. "I honestly believe that most physicians are out to take care of patients the best way we know how." Echoing this mission to deliver good health care was McCaffree, who spoke about her priorities as president.

"As the president of OSMA and as the spokesperson for the medical community in Oklahoma, I want to represent the interest of physicians as well as patients," said McCaffree.



Nancy Dickey, MD



Mary Anne McCaffree, MD

free. "As we seek to provide the highest quality of health care, we must encourage patients to take more responsibility in their own wellness."

Dickey will become the first woman to lead the AMA when she takes the office of president in June. McCaffree is the first female president for the OSMA.

Docs 'On Call' Through Telephone Network

Recently there has been publicity for "Dial A Doc" services in Oklahoma newspapers. An Oklahoma City company, a Wyoming medical doctor and the founder of Pre-Paid Legal Services Inc. have put together a service that they say makes medical help "a phone call away."

Founder Dr. Brent Blue, a Jackson Hole, Wyoming physician, claims to have the only service where people can call from any telephone in the country and speak to a physician in about 60 seconds. In his program, doctors staff telephone lines 24-hours-a-day, seven-days-a-week. Consumers call with a prepaid telephone card and receive information for \$2.00 per minute. A nurse practitioner call line has been available for about 14 years, but this service is the first to feature a physician on the other end of the line.

What kind of calls does the service typically get? Calls from mothers anxious about their babies, people wondering whether they should see a physician and others concerned about medication they may or may not be taking. Certainly there are other types of calls, including calls spurred by current events. When a television news program does a medical story, often that sparks calls to the service.

Because OSMA is unified with the AMA, the Journal contacted the AMA for its position on programs like "Dial A Doc" and those involving nurse practitioners and physician assistants. While there was nothing available specific to the "Dial A Doc" concept, the following Policies of the House of Delegates were relevant:

H-160.937 The Promotion of Quality Telemedicine

1. The AMA adopts the following principles for the supervision of nonphysician providers and technicians when telemedicine is used:
 - a. The physician is responsible for, and retains the authority for, the safety and quality of services provided to patients by nonphysician providers through telemedicine.
 - b. Physician supervision (e.g. regard-

ing protocols, conferencing, and medical record review) is required when nonphysician providers or technicians deliver services via telemedicine in all settings and circumstances.

- c. Physicians should visit the sites where patients receive services from nonphysician providers or technicians through telemedicine, and must be knowledgeable regarding the competence and qualifications of the nonphysician providers utilized.
- d. The supervising physician should have the capability to immediately contact nonphysician providers or technicians delivering, as well as patients receiving, services via telemedicine in any setting.
- e. Nonphysician providers who deliver services via telemedicine would do so according to the applicable nonphysician practice acts in the state where the patient receives such services.
- f. The extent of supervision provided by the physician should conform to the applicable medical practice act in the state where the patient receives services.
- g. Mechanisms for the regular reporting, recording, and supervision of patient care delivered through telemedicine must be arranged and maintained between the supervising physician, nonphysician providers, and technicians.
- h. The physician is responsible for providing and updating patient care protocols for all levels of telemedicine involving nonphysician providers or technicians.

2. The AMA urges those who design or utilize telemedicine systems to make prudent and reasonable use of those technologies necessary to apply current or future confidentiality and privacy principles and requirements to telemedicine interactions.
3. The AMA emphasizes to physicians their responsibility to ensure that their

legal and ethical requirements with respect to patient confidentiality and data integrity are not compromised by the use of any particular telemedicine modality.

4. The AMA advocates that continuing medical education conducted using telemedicine adhere to the standards of the AMA's Physician Recognition Award and the Essentials and Standards of the Accreditation Council for Continuing Medical Education. (CME/CMS Rep., I-96)

H-160.935

Policy on Phone Counseling

The AMA recommends the following statements on phone counseling:

1. Medical phone counseling services must appoint a physician director. Such services are not absolved of that responsibility by a disclaimer to the callers. A physician director must be ultimately responsible for the telephone triaging of patients in a given system.
2. A physician director must be responsible for:
 - a. Proving and updating protocols and algorithms for phone counseling by nonphysicians.
 - b. Identifying high-risk patients who must be directly and immediately referred to physicians at all times.
 - c. Supervision and review of second-level triage provided by advanced nurse practitioners and physician assistants.
 - d. Ensuring permanent records of all calls received.
 - e. Maintaining accountability for the patient until a referral has been effected with an accepting physician.
3. Urges quality assurance programs be developed by national accrediting agencies that address issues raised by phone counseling centers. (BOT Rep. 2, A-97)

DEATHS

Robert T. "Tom" Cronk, MD 1919-1998

Robert T. "Tom" Cronk, MD, died April 15, 1998, at the age of 78. A World War II veteran attaining the rank of captain, he began practicing internal medicine after the War. He'd received his medical degree from Duke Medical School and retired as chief of staff from St. John Medical Center. Dr. Cronk was an active volunteer – donating time to the Meals on Wheels program and to the Indigent Care program at Hillcrest. He was a member of the American Medical Association, the Tulsa County Medical Association and was a member of the OSMA since 1953.

Jack Paul Enos, MD 1919-1998

Jack Paul Enos, MD, died April 19, 1998. He was born in 1919 and served in the Philippines in the Army during World War II. He was graduated in 1950 from the University of Oklahoma School of Medicine and had been practicing in Yukon, Okla., since 1951. He was a member of the American Academy of Family Physicians and a member of the Lions Club and became a member of the OSMA in 1951.

IN MEMORIAM

1997

Benjamin Howard Gaston, MD	May 14
Roy Lawrence Neel, MD	May 19
William Carl Lindstrom, MD	May 21
Joseph Sansted Henderson, MD	May 26
Charles Marion O'Leary, MD	June 22
Dale Gustaf Johnson, MD	June 24
Edmond Herman Kalmon, Jr., MD	June 24
Edward Leroy Koger, MD	June 30
Gerald Matthew Steelman, MD	August 29
George Arthur Martin, MD	September 10
John Douglas Hesson, MD	October 18
Dorothy Rose Danna, MD	November 7
Marcus Lafayette Cox, MD	November 11
Curtis Bert Cunningham, MD	November 16
David Eugene Livingston, MD	November 21
Fred Thomas Fox, MD	December 6
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Bryon Fremont Smith, MD	February 21
Emil Maurice Childers, MD	February 22
Burton Bonnard McDougal, MD	February 23
Robert T. "Tom" Cronk, MD	April 15
Jack Paul Enos, MD	April 19
Paul Arthur Barnett, MD	April 28

Paul Arthur Barnett, MD 1934-1998

Paul Arthur Barnett, MD, died on April 28, 1998, at the age of 63. He received his Doctor of Medicine degree from the University of Oklahoma in 1963. After an internship in Wichita, Kan., Dr. Barnett established his medical practice in Bethany, Okla., as a family practice physician. During his career, Dr. Barnett served as chief of staff at Deaconess Hospital, was a long-time sports physician for the US Olympic Ski team and volunteered as team physician for Putnam City Schools and state university athletic programs. He was a charter member of the Diplomate Board of Family Medicine, member of the American Academy of Family Physicians, the Osler Society, American Medical Association and the Oklahoma County Medical Society. Dr. Barnett had been a member of the Oklahoma State Medical Association since 1964.

CLASSIFIEDS

Classified ads are 50 cents a word, with a minimum of \$25 per ad. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and will add 6 words to the total. Payment must accompany all submissions. Orders will NOT be accepted via telephone or fax. Mail ad with payment to OSMA JOURNAL, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118. Deadline is the 15th of the month prior to the month of issue (e.g., Dec. 15 for the Jan/Feb issue).

Physicians Wanted

Radiation Oncologist: Must be board certified and have completed brachytherapy fellowship, including interstitial HDR. Salaried position in Oklahoma. Send resume to Ms. Hamilton, 2408 East 81st Street #100, Tulsa, OK 74137-4210.

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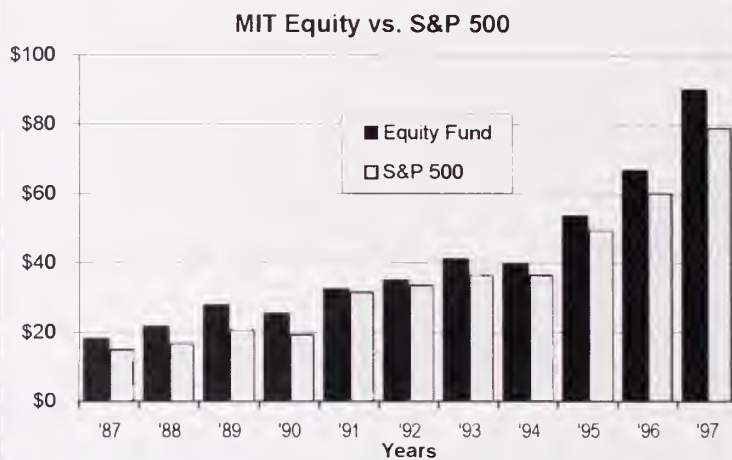
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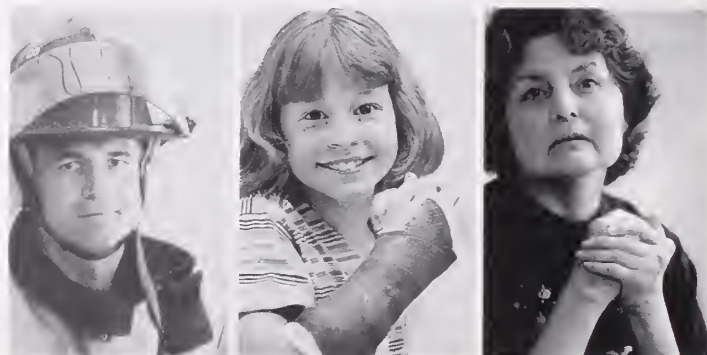
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Announcing the 1998 Mark R. Johnson Competition— Excellence in Medical Writing

The Editorial Board of the JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION and the OSMA Board of Trustees are proud to announce the 1998 Mark R. Johnson Competition—Excellence in Medical Writing.

A \$500 cash award will be presented to the medical student or resident at the University of Oklahoma College of Medicine (Oklahoma City or Tulsa campus) who, by December 31 of this year, submits the best scientific paper or opinion piece for publication in the JOURNAL.

Entries will be judged by the JOURNAL's Editorial Board at its annual meeting in the spring of 1999 and the winner, if any, will be announced at the Annual Meeting of the OSMA House of Delegates in April 1999. Presentation of the award in any given year will be dependent upon the receipt of eligible papers and at the discretion of the Editorial Board. All decisions of the Editorial Board will be final.

The student or resident submitting the paper need not be the sole author, but must be the *lead* author and must have done the majority of the writing. *Entries in the competition should be clearly labeled as such when submitted.*

Entries should be mailed to: Mark R. Johnson Competition, OSMA JOURNAL, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118.

The memorial trust that funds the competition was established by the friends and family of Mark R. Johnson, MD, who, during his two decades as editor-in-chief of the OSMA JOURNAL, exemplified the very best in both expository and opinion writing in the field of medicine.

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■ **The AMA strongly opposes the criminalization of medicine, and physician leaders regularly speak to the issue.** But recently, on the front page of the Daily Oklahoman, physicians saw their position eloquently articulated by US District Judge Frank Seay. When testimony ended in the murder trial of a Broken Arrow physician, the judge stunned the courtroom with his comments: "I'm wondering if this isn't becoming...an Orwellian situation. It's a struggle for me; I wonder if this is next: will the government-'Big Brother,' assistant US attorneys, FBI agents-be standing in emergency rooms all over this country and monitoring what medical personnel do?" he said. "Can this lead to doctors...refusing to give aggressive treatment because they fear?"

It was refreshing and rewarding to hear such an important position presented by someone other than a physician.

■ **At their meeting in April, Delegates to the OSMA House of Delegates elected members of the OSMA Board of Trustees.** They are:

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■ **Several physicians and others were recognized for their contributions to the OSMA and their community during the OSMA House of Delegates meeting last month in Oklahoma City.**

- Best Journal Cover Photograph: William Harrison, MD
- Charlotte S. Leebron Memorial Award: Eliezer Katz, MD; Charles M. Miller, MD; Bakr Nour, MD; Myron E. Schwartz, MD; Anthony Sebastian, MD; Sukru Emre, MD; for their paper entitled "The First in Situ Split of a Liver in the USA Performed by Two Geographically Distant Transplant Centers-Enhancing, Sharing, and Expanding the Cadaveric Liver Organ Pool," published in November/December, 1997.
- Mark R. Johnson Excellence in Medical Writing Award: Dr. Christian C. Sieck
- Wyeth Ayerst Community Service Award: Kent King, MD, and George Prothro, MD
- Outstanding Service to the AMA Delegation as a Delegate and Alternate Delegate: Sara R. DePersio, MD
- Presidential Citation Award: Floyd F. Miller, MD and Kathleen A. Musson, Associate Executive Director-OSMA, for their outstanding service.
- Don J. Blair Friend of Medicine: Rep. Betty Floyd

■ **PLICO Board Members announced at the recent House of Delegates meeting are:**

- John R. Alexander, MD
- Ed L. Calhoon, MD
- William C. McCurdy, MD
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■ **Congratulations to the recently-elected AMA Delegates and Alternates:**

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** appointed by President for term of W.F. Phelps, MD*

■ **Mark your calendars.**

Board of Trustees meetings:

July 12, 1998: Oklahoma City, OSMA Headquarters
October 18, 1998: Tulsa, Tulsa College of Medicine
January 17, 1999: Oklahoma City, OSMA Headquarters
April 15, 1999: Tulsa, Southern Hills Marriott

OSMA House of Delegates - 1999

April 16-18, 1999: Tulsa, Southern Hills Marriott

■ **The Council on Ethical and Judicial Affairs (CEJA) will host an Open Forum at the 1998 AMA Annual Meeting, Saturday, June 13, from 4-6 p.m. at the Hyatt Regency Hotel in Chicago.** The forum is open to all AMA members, guests, other interested nonmembers and the press. Any member of the Association is privileged to speak on agenda items. Interested nonmembers may submit to the Chair, prior to speaking, their written testimony along with their identity and affiliation. A request to provide oral testimony will be honored upon approval of the Chair. Due to time constraints and other considerations, some nonmembers may not be called upon to speak. Written testimony submitted to the Council by nonmembers will be given the same consideration as if it had been delivered orally.

CEJA welcomes input on the following agenda items for the meeting:

- The Principles of Medical Ethics
- Genetic Enhancements
- Divided Loyalties of Military Physicians
- The Use of Placebos in Clinical Practice
- Access to Medical Records for Research

OSMA members interested in providing written or oral testimony on any of the above issues should contact the CEJA staff directly at 312/464-5223 or 312/464-4859.

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On Legislative Setbacks

Physicians are pulled more and more into the legislative arena to take issue with governmental encroachments into the practice of medicine. Here in Oklahoma, the Legislature annually introduces a spate of bills to micromanage patient-physician contact. In the 1998 legislative session a flagrant redefinition of the perimeter of surgery became law. Despite a maximum effort by Oklahoma physicians and OSMA lobbyists, the optometry surgery bill SB 1192 was enacted and is now Oklahoma law.

OSMA physicians spoke millions of cogent words and spent many hours to educate decision-makers on the rational issues inherent in the optometry surgery bill to no avail. The decisive majority voting in favor of this bill is a signal to us that the public perception of physicians is not what we would like it to be, nor what we thought it was.

In the main, physicians tend to be shy about politics, and it is probably true that many physicians have difficulty understanding political thinking. It is certainly true that physicians and attorneys are trained in problem-solving methodologies that are very different, and often contrary. For many years attorneys have had great influence on legislative tenets, and consequently physicians swimming in the legislative pond will succeed about like ducklings swimming among the barracuda's.

OSMA's Political Action Committee activity has been somewhat developed, but the SB 1192 vote suggests that a different, and new, direction should now be considered. The trouble with PAC work may be summed up in the adage: "when you buy a friend you get two enemies free!" And Oklahoma physicians clearly must develop a new strategy in order to lead medical policy decisions in Oklahoma.

In the past, physician participation in politics has been naive and rudimentary, since legislative agendas and the practice of medicine are highly incompatible. We now have no physician in the Oklahoma State Legislature; Congressman Tom Coburn is our only elected physician public official. We need to develop a way and a motivation for every Oklahoma physician to participate in county and state political activities so that every politician in Oklahoma will have several physician friends from whom advice will be sought. A broader and more intense personal legislative contact by physicians offers a significant opportunity to improve medicine's results in the Legislature.

In the easy passage of the optometry surgery bill, we can hear the people of Oklahoma saying: "If optometrists do eye surgery it will cost less." The emotive fallacy of this idea tells us that an intensified public relations campaign for physicians and organized medicine in Oklahoma would be highly desirable now. We physicians are presently aware that we have very little political clout, and simultaneously we have high ideals and goals for medical care in Oklahoma. We physicians must restore our image as altruistic healers. We must restore the reality of good, scientific care for everyone.

We must re-earn and reclaim the respectful attention of the people of Oklahoma.

Ray V. McIntyre, M.D.

Ray V. McIntyre, MD
Editor-In-Chief



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THERE'S NO WAY I'LL LET
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PRESIDENT'S PAGE

Responsive, Responsible and Ready

Greetings to all during these first hot days of summer. The OSMA has been busy attending to the interests and directions of the membership. Highlights of some of the important issues are the focus of this message.

OSMA members have received a letter detailing the issues about hospital committees and peer review. The Supreme Court of Oklahoma determined that documents or records prepared or generated pursuant to "peer review" are not protected from discovery. That is, the peer review privilege is not applicable to credentialing decisions where the patient files suit against the hospital for negligent credentialing. The peer review privilege does not protect the minutes of a quality assurance committee relating to the care of a specific patient.



Be reminded that physicians who conduct their peer review activities in good faith are immune from damages in most instances by federal and state law. Your PLICO insurance covers you for liability that you might incur as a result of your participation in peer review as a reviewer, or when your activities are being reviewed. Other companies may not provide this protection.

One of the cornerstones of patient care improvement is peer review, which depends upon the candid exchange of thoughts and ideas. There is concern that the Court's decision may affect the quality of this process. The OSMA is examining appropriate action to remedy this situation. This issue will be incorporated into the discussions at the PLICO loss prevention seminars.

The AMA delegates worked on your behalf during this year's annual meeting in Chicago. Implementation of the proposed Medicare Evaluation and Management (E&M) codes has been delayed. The AMA opposes inappropriate penalties or prosecution of physicians with respect to alleged fraud and abuse. Physicians must be protected from allegations of fraud and abuse and criminal and civil penalties and/or sanctions due to differences in interpretation and/or inadvertent errors in coding of the E&M documentation guidelines by public or private payers or law enforcement agencies. The burden of proof for proving fraud and abuse should rest with the government at all times. Congressional action should

be sought to enact a "knowing and willful" standard in the law for civil fraud and abuse penalties as it already applies to criminal fraud and abuse penalties with regard to coding and billing errors and insufficient documentation.

Physicians must be accorded the same due process under the Medicare audit system or Department of Justice investigations that are afforded all US citizens. The confidential medical record should be preserved as an instrument of clinical care with strong confidentiality protections. It should not be used as an accounting document. HCFA should discontinue random prepayment audits of E&M services. In lieu of prepayment audits, HCFA should use focused medical review of outlines based on reviews of patterns of services, using an independent medical peer review process, where physicians practicing in the same specialty review their peers. No financial or legal penalties should be assessed based on one level of disagreement in E&M code assignment. HCEA must stop the practice of requiring physicians to repay alleged Medicare overpayments before an actual appeal is rejected or a final administrative decision or a court order is rendered. Legislative relief will be sought if advocacy with HCFA is not successful in this regard.

Additional actions taken focus on peer review and further delay in the implementation of the 1997 E&M guidelines, as well as providing a "safe harbor" for physicians whose services are selected for review.

Your OSMA continues to be responsive and advocate on your behalf. Peer review and E&M guidelines are two examples of this responsibility. Your organization stands ready to continue in this advocacy role for you and our patients.

A handwritten signature in dark ink that reads "Mary Anne McCaffree". The signature is written in a cursive, flowing style.

Mary Anne McCaffree, MD
OSMA President

Announcing the 1998 Mark R. Johnson Competition— Excellence in Medical Writing

The Editorial Board of the JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION and the OSMA Board of Trustees are proud to announce the 1998 Mark R. Johnson Competition—Excellence in Medical Writing.

A \$500 cash award will be presented to the medical student or resident at the University of Oklahoma College of Medicine (Oklahoma City or Tulsa campus) who, by December 31 of this year, submits the best scientific paper or opinion piece for publication in the JOURNAL.

Entries will be judged by the JOURNAL's Editorial Board at its annual meeting in the spring of 1999 and the winner, if any, will be announced at the Annual Meeting of the OSMA House of Delegates in April 1999. Presentation of the award in any given year will be dependent upon the receipt of eligible papers and at the discretion of the Editorial Board. All decisions of the Editorial Board will be final.

The student or resident submitting the paper need not be the *sole* author, but must be the *lead* author and must have done the majority of the writing. *Entries in the competition should be clearly labeled as such when submitted.*

Entries should be mailed to: Mark R. Johnson Competition, OSMA JOURNAL, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118.

The memorial trust that funds the competition was established by the friends and family of Mark R. Johnson, MD, who, during his two decades as editor-in-chief of the OSMA JOURNAL, exemplified the very best in both expository and opinion writing in the field of medicine.

The Preparticipation Physical Examination and Its Current Status in Oklahoma

Daniel Clindenbeard, MD, and Paul Wright, MD

Every year several thousands of preparticipation physical examinations (PPE) are performed for high school athletes. The main goal is to provide health and safety for the high school athletes. A 1997 monograph sets forth recommended guidelines for the PPE. The objective of this paper is to review the monograph and compare it to the current practice within Oklahoma. The form provided by the Oklahoma Secondary School Activities Association lacks proper screening questions, especially for cardiac disease and exercise induced asthma. The recommendations in the monograph provide an excellent foundation from which uniform guidelines can be developed. Oklahoma should strongly consider adopting the monograph's form or updating the current form.

Each year several thousand high school athletes have a preparticipation physical examination (PPE) performed by an Oklahoma physician. Examinations are performed in either the privacy of an office setting or in a station-based environment. Every athlete has to have an examination by a physician before they can participate in their sport. Not until 1992 were there any uniform guidelines for the PPE of high school athletes. That year a monograph was published and endorsed by five major organizations (American Academy of Family

Physicians, American Academy of Pediatrics, American Medical Society for Sports Medicine, American Orthopedic Society for Sports Medicine, and American Osteopathic Academy of Sports Medicine). A second edition to the monograph was published in 1997. The monograph is a guide for physicians performing the PPE. It covers the goals of the PPE, gives detailed instructions on how to perform a preparticipation history and physical examination, gives information on determining clearance for participation, and discusses the medicolegal precautions.¹ The monograph also provides a medical evaluation form to copy and use for each examination. (Appendix A)

The Oklahoma Secondary School Activities Association (OSSAA) is the governing body that determines the sports participation rules for Oklahoma secondary schools. Every athlete must have on file with the school principal a PPE form signed by a physician and parental consent. The OSSAA provides a form, but other forms may be used if the information contained is in accordance with the information on the OSSAA form. (Appendix B) The examination must be given no earlier than May 1 of the preceding year in which the student is to participate and before the first day of practice. This article will review the proposed guidelines of the monograph and compare them to the current practice within Oklahoma for the PPE.

Direct correspondence to Daniel Clindenbeard, MD, at the St. Anthony Family Practice Residency Program, 608 NW 9th, Suite 1000, Oklahoma City, Oklahoma 73102.

Goals

The overall goal of the PPE is to help maintain the health and safety of the athletes. Three primary objectives were established by the monograph to facilitate obtaining this goal.¹

The first objective is to detect any medical condition that may predispose an athlete to injury or illness during competition. This includes any acute, recurrent, chronic, or untreated injuries or illnesses and also any congenital or developmental problems.

The second objective is to detect potentially life-threatening or disabling medical conditions that may limit an athlete's participation. Certain conditions may be a contraindication for the athlete to participate in their sport, or certain conditions may be disabling if not recognized or treated properly.

The third objective is to meet the legal and insurance requirements of the state.

Medical Evaluation Form

The form used for the PPE is comprised of three components: medical history, physical examination, and clearance. Within each of these sections essential information needs to be covered.

History

The medical history is the foundation to an adequate preparticipation evaluation. A complete history will identify approximately 75 percent of problems affecting athletes.²⁻⁴ In the monograph, there is a history intake form that covers a number of items. It asks general questions about the past medical history and more specific questions about cardiovascular, respiratory, neurologic, musculoskeletal, and dermatological systems. In addition, the form addresses the use of protective equipment, identifies vision problems, and screens for eating disorders and psychosocial problems. There are also questions about immunizations and about the menstrual history of females.

Questions that cover the cardiovascular risks, screen for unrecognized exercise-induced asthma, and detect previous musculoskeletal injuries, neurological injuries, and heat injuries have been considered of great importance.⁴

A thorough cardiovascular history is important. After trauma, cardiac death is the most frequent type of sports-related mortality among young athletes.⁵ Any history of exertional syncope or chest pain, unexplained shortness of breath, dizziness during or after exercise, heart murmurs, high blood pressure, or family history of heart problems may warrant further cardiology evaluation.⁶

The American Heart Association (AHA) has published a set of recommendations for identifying athletes at risk for cardiovascular sudden death. The AHA panel concluded that "a complete and careful personal and family history and physical examination designed to screen for those cardiovascular lesions known to cause sudden death or disease progression in young athletes" should be obtained.⁷ The cardiovascular history should include questions for any:

1. Prior occurrence of exertional chest pain/discomfort or syncope/near-syncope as well as excessive, unexpected, and unexplained shortness of breath or fatigue associated with exercise.
2. Past detection of a heart murmur or increased systemic blood pressure.
3. Family history of premature death (sudden or otherwise), or significant disability from cardiovascular disease in close relative(s) younger than 50 years old or specific knowledge of the occurrence of certain conditions (e.g., hypertrophic cardiomyopathy, dilated cardiomyopathy, long QT syndrome, Marfan syndrome, or clinically important arrhythmias).⁷

The monograph includes these questions in their form. However, the OSSAA form does not ask any specific questions about loss of consciousness during or after exercise (it does ask about dizziness and fainting in general), chest pain during or after exercise, a history of a heart murmur, or family history of sudden or early cardiac death.

Exercise induced asthma (EIA) is commonly missed in preparticipation physical examinations unless the proper screening questions are asked. Studies of high school athletes suggest 85 percent of athletes with persistent cough after exercise screen positive for EIA.³ The monograph's history form screens for EIA by asking if the athlete has any cough, wheeze, or trouble breathing during or after activity. If an athlete answers yes to these questions then he/she should have further evaluation for EIA or untreated chronic asthma. The history section on the form provided by the OSSAA does not screen for exercise induced asthma.

The musculoskeletal history is important to detect athletes that may have past, recurrent injuries or incompletely treated injuries. Orthopedic injuries are the most common reason for disqualification, and knee injuries are the most prevalent.⁸ Unfortunately, many athletes fail

to go through adequate rehabilitation before returning to competition.³

For musculoskeletal injuries, the OSSAA form does ask a general question about "bone, joint, or spine injury" The monograph's form allows the athletes to mark which joint and if he/she had a sprain or fracture. If an athlete has a history of musculoskeletal injury, important questions to ask are type of treatment received, follow-up care, and if the athlete completed rehabilitation.

A history of a concussion in an athlete should be a concern for the screening physician especially with the serious sequelae of a second concussion.⁹ There are many classification systems of concussions and also gray areas in each system regarding when an athlete can return to play.¹⁰ Most physicians agree that an athlete should not return to play if their sensorium does not clear quickly or if other symptoms and signs are present, such as loss of consciousness, post-traumatic amnesia, confusion, dizziness, or headache.¹⁰ During the PPE, the athlete should be questioned as to whether all symptoms have resolved. Persistence of symptoms indicates a need for further evaluation beyond the PPE before participation.⁴

The OSSAA and monograph forms both ask if the athlete has a history of a seizure or concussion. In addition, the monograph form asks about any symptoms of numbness or tingling in their extremities, and if they have a history of a stinger, burner, or pinched nerve.

Physical Exam

A complete discussion on the physical examination is beyond the scope of this article; however, certain key areas will be discussed. The recommended components of the physical examination are shown in Appendix A. OSSAA's form covers the same components as the monograph. The main difference in the physical examination between athletes is physician dependent. All components of the physical examination are important but the cardiovascular and musculoskeletal examination receive the most attention because of the impact of their types of abnormalities. In a study that reviewed 2,576 PPEs performed on 10- to 18-year-old students, a heart murmur was the most frequent physical finding requiring physician follow-up and the musculoskeletal examination yielded the highest number of abnormal findings.⁸

Cardiac screening of athletes is probably the most important part of the physical examination because sudden death in a young athlete

is believed to be due to cardiovascular causes. Table 1 lists the most common causes of sudden death in athletes.¹²

Hypertrophic cardiomyopathy is the leading cause of sudden death in young athletes. Though this condition is rare, physicians should be aware of the characteristic murmur heard with this condition. The systolic ejection murmur typically is heard along the left sternal border and begins shortly after the first heart sound. It is accentuated by maneuvers which reduce the volume of blood flow that returns to the left side of the heart. With maneuvers such as going from a lying position to a standing position, the murmur will become louder. Furthermore, Valsalva increases the sound of the murmur where as squatting decreases the sound. On the other hand, aortic stenosis and innocent murmurs decrease with Valsalva and increase with squatting.

The musculoskeletal examination should screen for conditions that may predispose to injury and for past injuries or conditions that may have been incompletely treated or rehabilitated. The extent of the musculoskeletal examination is a much debated topic. According to the monograph, a general screening examination for asymptomatic athletes who have no history of injury is appropriate. Studies show that the history alone has a 92 percent sensitivity in detecting musculoskeletal injuries.⁸ However, if an athlete has a previous injury or pain, joint instability, locking, weakness, atrophy, or other signs or symptoms detected by the general screening exam, a joint specific examination should be done. Studies show that 50 percent of disqualifications are related to knee problems.³

Clearance

The final step after the history and physical examination is to determine clearance for participation. Fortunately, disqualification rates in several studies is between 0.3 percent to 1.3 percent of all students screened.⁴ If a problem is identified, four general questions should be considered.

1. Will this problem increase the athlete's risk of morbidity or mortality?
2. Will other participants be at increased risk of morbidity if this athlete is allowed to participate?

Table 1. Most Common Causes of Sudden Death

Hypertrophic Cardiomyopathy
Anomalous Coronary Artery
Atherosclerotic Heart Disease
Morfon's Syndrome (aortic rupture)
Idiopathic Concentric Left
Ventricular Hypertrophy

3. Will further evaluation, treatment and/or rehabilitation allow full participation and while these are initiated, can the athlete participate in limited activities?
4. If the problem precludes full, unrestricted participation, can the athlete be cleared for participation in limited activities?¹¹

Clearance can be limited to certain sports or clearance can be deferred until any necessary rehabilitation or medical treatment is completed. Two excellent resources to assist the physician in determining clearance are the *American Academy of Pediatrics Committee in Sports Medicine: Recommendations for Participation in Competitive Sports* and the *26th Bethesda Conference: Cardiovascular Abnormalities in the Athlete—Recommendations Regarding Eligibility for Competition*.^{13,14} Along with clinical judgment, it would be highly recommended to refer to these published articles for general guidelines in determining clearance.

Discussion

In comparing the monograph's form with OSSAA's form, the greatest difference is between the history. The form provided by the OSSAA covers the major systems, but is not as comprehensive as the form in the monograph. The OSSAA's form does not meet the primary objectives stated in the monograph. The OSSAA's form specifically lacks screening questions for cardiac conditions. Questions proposed by the monograph or the AHA panel should be addressed in the history of the PPE. Also, questions screening for EIA are not asked, i.e. wheezing and/or coughing during or after exercise. Oklahoma is not alone in this situation. A national survey done by Feinstein et al showed that a review of the medical history forms used by the different states revealed that they vary greatly in number of questions and that most questions are not specific enough to identify many of the abnormalities that require further evaluation.²

One must remember the preparticipation examination is useful for screening and does not take the place of routine health care maintenance. However, the preparticipation evaluation may be the only time the athlete receives medical attention. The hope for the future is that there will be universal guidelines for all states to follow. The authors of the monograph and American Heart Association have both proposed universal guidelines.^{1,7} This may only be achieved if the National Federation of State High School Association requires a standardized preparticipation physical

examination for each state. The goal for universal guidelines is to provide consistent preparticipation physical examinations for all athletes. With developments like the *Preparticipation Physical Evaluation* monograph published by five major medical organizations and the *Cardiovascular Preparticipation Screening of Competitive Athletes* statement issued by the AHA, a solid foundation for uniform guidelines has been established.

Conclusion

The PPE is the first step in identifying student athletes at risks for injury, illness, or death. A thorough and functional PPE form is an essential step in establishing an excellent PPE. The recommendations in the monograph provide an excellent foundation from which uniform guidelines can be developed. Oklahoma should either adopt the monograph's form or update the current form to meet the recommendations set forth by the monograph. This would help ensure health and safety for all our high school athletes.

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The Authors

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Preparticipation Physical Evaluation

HISTORY

DATE OF EXAM _____

Name _____ Sex _____ Age _____ Date of birth _____

Grade _____ School _____ Sport(s) _____

Address _____ Phone _____

Personal physician _____

In case of emergency, contact

Name _____ Relationship _____ Phone (H) _____ (W) _____

Explain "Yes" answers below.**Circle questions you don't know the answers to.**

		Yes	No			Yes	No
1. Have you had a medical illness or injury since your last check up or sports physical?	<input type="checkbox"/>	<input type="checkbox"/>		10. Do you use any special protective or corrective equipment or devices that aren't usually used for your sport or position (for example, knee brace, special neck roll, foot orthotics, retainer on your teeth, hearing aid)?	<input type="checkbox"/>	<input type="checkbox"/>	
Do you have an ongoing or chronic illness?	<input type="checkbox"/>	<input type="checkbox"/>		11. Have you had any problems with your eyes or vision?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Have you ever been hospitalized overnight?	<input type="checkbox"/>	<input type="checkbox"/>		Do you wear glasses, contacts, or protective eyewear?	<input type="checkbox"/>	<input type="checkbox"/>	
Have you ever had surgery?	<input type="checkbox"/>	<input type="checkbox"/>		12. Have you ever had a sprain, strain, or swelling after injury?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Are you currently taking any prescription or nonprescription (over-the-counter) medications or pills or using an inhaler?	<input type="checkbox"/>	<input type="checkbox"/>		Have you broken or fractured any bones or dislocated any joints?	<input type="checkbox"/>	<input type="checkbox"/>	
Have you ever taken any supplements or vitamins to help you gain or lose weight or improve your performance?	<input type="checkbox"/>	<input type="checkbox"/>		Have you had any other problems with pain or swelling in muscles, tendons, bones, or joints?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Do you have any allergies (for example, to pollen, medicine, food, or stinging insects)?	<input type="checkbox"/>	<input type="checkbox"/>		<i>If yes, check appropriate box and explain below.</i>			
Have you ever had a rash or hives develop during or after exercise?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Head	<input type="checkbox"/> Elbow	<input type="checkbox"/> Hip	
5. Have you ever passed out during or after exercise?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Neck	<input type="checkbox"/> Forearm	<input type="checkbox"/> Thigh	
Have you ever been dizzy during or after exercise?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Back	<input type="checkbox"/> Wrist	<input type="checkbox"/> Knee	
Have you ever had chest pain during or after exercise?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Chest	<input type="checkbox"/> Hand	<input type="checkbox"/> Shin/calf	
Do you get tired more quickly than your friends do during exercise?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Shoulder	<input type="checkbox"/> Finger	<input type="checkbox"/> Ankle	
Have you ever had racing of your heart or skipped heartbeats?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Upper arm	<input type="checkbox"/> Foot		
Have you had high blood pressure or high cholesterol?	<input type="checkbox"/>	<input type="checkbox"/>		13. Do you want to weigh more or less than you do now?	<input type="checkbox"/>	<input type="checkbox"/>	
Have you ever been told you have a heart murmur?	<input type="checkbox"/>	<input type="checkbox"/>		Do you lose weight regularly to meet weight requirements for your sport?	<input type="checkbox"/>	<input type="checkbox"/>	
Has any family member or relative died of heart problems or of sudden death before age 50?	<input type="checkbox"/>	<input type="checkbox"/>		14. Do you feel stressed out?	<input type="checkbox"/>	<input type="checkbox"/>	
Have you had a severe viral infection (for example, myocarditis or mononucleosis) within the last month?	<input type="checkbox"/>	<input type="checkbox"/>		15. Record the dates of your most recent immunizations (shots) for:			
Has a physician ever denied or restricted your participation in sports for any heart problems?	<input type="checkbox"/>	<input type="checkbox"/>		Tetanus _____ Measles _____			
6. Do you have any current skin problems (for example, itching, rashes, acne, warts, fungus, or blisters)?	<input type="checkbox"/>	<input type="checkbox"/>		Hepatitis B _____ Chickenpox _____			
7. Have you ever had a head injury or concussion?	<input type="checkbox"/>	<input type="checkbox"/>		FEMALES ONLY			
Have you ever been knocked out, become unconscious, or lost your memory?	<input type="checkbox"/>	<input type="checkbox"/>		16. When was your first menstrual period?	_____		
Have you ever had a seizure?	<input type="checkbox"/>	<input type="checkbox"/>		When was your most recent menstrual period?	_____		
Do you have frequent or severe headaches?	<input type="checkbox"/>	<input type="checkbox"/>		How much time do you usually have from the start of one period to the start of another?	_____		
Have you ever had numbness or tingling in your arms, hands, legs, or feet?	<input type="checkbox"/>	<input type="checkbox"/>		How many periods have you had in the last year?	_____		
Have you ever had a stinger, burner, or pinched nerve?	<input type="checkbox"/>	<input type="checkbox"/>		What was the longest time between periods in the last year?	_____		
8. Have you ever become ill from exercising in the heat?	<input type="checkbox"/>	<input type="checkbox"/>		Explain "Yes" answers here:			
9. Do you cough, wheeze, or have trouble breathing during or after activity?	<input type="checkbox"/>	<input type="checkbox"/>		_____			
Do you have asthma?	<input type="checkbox"/>	<input type="checkbox"/>		_____			
Do you have seasonal allergies that require medical treatment?	<input type="checkbox"/>	<input type="checkbox"/>		_____			

I hereby state that, to the best of my knowledge, my answers to the above questions are complete and correct.

Signature of athlete _____ Signature of parent/guardian _____ Date _____

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OSSAA PHYSICAL EXAMINATION AND PARENTAL CONSENT FORM

NAME OF STUDENT			SEX		PARENT OR GUARDIAN		
HOME ADDRESS			GRADE/AGE		HOME PHONE		WORK PHONE
PARENT or GUARDIAN				PHYSICIAN			
STUDENT HEALTH HISTORY							
Parents or Guardian Please Answer "YES" or "NO" Only to the Following Questions				VITALS		SATIS- FACTORY	
				EXAM COMMENTS		FOLLOW UP	
	YES	NO		YES	NO		
Chronic and/or Recurrent Illness?			HT.				
Hospitalizations?			WT.				
Operations?			BP.				
Taking Medications?			Pulse				
Organs Missing?			GENERAL				
Heat Exhaustion?			Head				
Dizziness, Fainting, Seizures?			Eyes				
Knocked Out?			Ent				
Concussion?			Dental				
Wear Glasses/Contacts?			Chest				
Hearing Problems?			Heart				
Allergic to Medications?			Abdomen				
High Blood Pressure?			Genitalia				
Hernia?			Skin				
Bone, Joint, Spine Injury?			Extrem., Back, Neck				
Liver, Spleen, Kidney, or Skin Problem?			SUMMARY OF COMMENTS:				
Explain any yes answers or any other pertinent information concerning health history:							
<input type="checkbox"/> Check here if additional comments are on the reverse side The above information is correct to the best of my knowledge. I hereby give my informed consent for the above mentioned student to participate in activities. I understand the risk of injury in athletic participation. If my son/daughter becomes ill or is injured, necessary medical care can be instituted by physicians, coaches, trainers or other personnel properly trained.			<input type="checkbox"/> Check here if additional comments are on the reverse side Sports Participation approved: yes _____ no _____ deferred _____ Limitations or Follow-up: X				
Signature of Parent or Guardian / Date			Signature of Physician / Date				

Preparticipation Physical Evaluation

PHYSICAL EXAMINATION

Name _____		Date of birth _____	
Height _____	Weight _____	% Body fat (optional) _____	Pulse _____ BP _____ / _____ (____ / ____ . ____ / ____)
Vision R 20/ _____ L 20/ _____	Corrected: Y N	Pupils: Equal _____ Unequal _____	

	NORMAL	ABNORMAL FINDINGS	INITIALS*
MEDICAL			
Appearance			
Eyes/Ears/Nose/Throat			
Lymph Nodes			
Heart			
Pulses			
Lungs			
Abdomen			
Genitalia (males only)			
Skin			
MUSCULOSKELETAL			
Neck			
Back			
Shoulder/arm			
Elbow/forearm			
Wrist/hand			
Hip/thigh			
Knee			
Leg/ankle			
Foot			

* Station-based examination only

CLEARANCE

☐ Cleared

☐ Cleared after completing evaluation/rehabilitation for: _____

☐ Not cleared for: _____ Reason: _____

Recommendations: _____

Name of physician (print/type) _____ Date _____

Address _____ Phone _____

Signature of physician _____, MD or DO

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Preparticipation Physical Evaluation (monograph). Kansas City, MO: American Academy of Family Physicians, American Academy of Pediatrics, American Medical Society for Sports Medicine, American Orthopaedic Society for Sports Medicine, American Osteopathic Academy of Sports Medicine, 1992, 1996.

What Killed Stonewall Jackson?

Joe D. Haines, MD

The circumstances surrounding the death of Stonewall Jackson are well-known. Following perhaps his greatest victory at Chancellorsville, Jackson and his staff were scouting ahead of their lines after dark on May 2, 1863, when tragedy struck. Jackson and his staff were mistaken for Union cavalry and were fired upon by their own troops.

Jackson suffered severe wounds to his left arm which required amputation. General Robert E. Lee remarked upon receiving the news, "He has lost his left arm, but I have lost my right."¹ Eight days following the amputation Jackson was pronounced dead from pneumonia. The detailed medical documentation of Jackson's final days strongly suggests that pulmonary embolism, rather than pneumonia, was responsible for the great general's death.

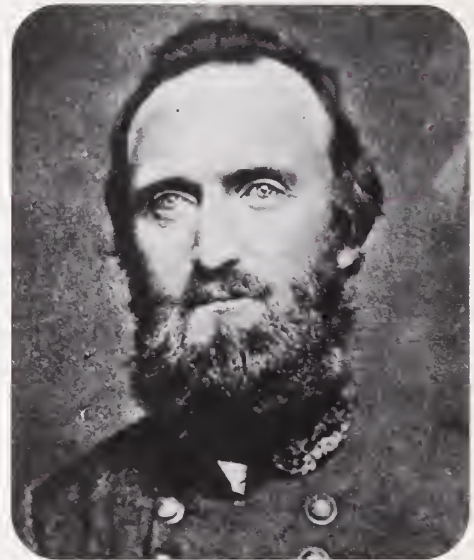
Leading up to Chancellorsville, Jackson had enjoyed the fortuitous combination of personal skill as a commander, ineptitude of his opponents and good luck. Jackson had begun the Civil War as an unknown professor at Virginia Military Institute in Lexington, Virginia.

Before his tenure at VMI, Jackson had distinguished himself fresh out of West Point (17th in a class of 59) during the Mexican War. He earned two brevets for gallantry while serving as an artillery officer. He ended the Mexican War in 1847 as a brevet-Major at the age of 24. He resigned his army commission in 1852 to take the position of professor of artillery tactics and natural philosophy at VMI, where he remained until 1861.

Jackson was commissioned Colonel of Confederate Volunteers in April of 1861 and promoted to brigadier general on June 17, 1861. General Jackson won fame at Manassas or First Bull Run on July 21, 1861, where his staunch defense of Henry Hill earned him the nickname, "Stonewall." He was promoted to major general in October, 1861, and appointed commander of all forces in the Shenandoah Valley the following month.

In the Shenandoah Valley Jackson fought a masterful campaign against a greatly superior Union force. Jackson's men prevented the reinforcement of McClellan's drive for Richmond and probably saved the Confederacy. After being repulsed near Kernstown, Virginia, Jackson outmaneuvered and defeated Union forces at Front Royal on May 23; Winchester, May 24-25; Cross Keys, June 8; and Port Republic, June 9.

Jackson then joined with Lee in driving McClellan from the Peninsula at the Seven Days Battles from June 26 to July 2. Jackson's campaign in the Shenandoah is regarded by military historians as a strategic masterpiece, proving Jackson to be a fearless and aggressive commander, a brilliant tactician and a master of the rapid maneuver. His rule of strategy was summarized by him as,



Thomas J. "Stonewall" Jackson

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The Death of Stonewall Jackson

"Always mystify, mislead, and surprise the enemy."¹ This strategy also applied in part to his subordinates who were rarely informed of his plans. Fearful of leaks, Jackson never conferred with his staff officers when formulating plans. Only with Lee did Jackson consult.

Jackson next destroyed General Pope's depot at Manassas Junction on August 27 and repulsed Pope's attack on Groveton on August 28. He then contributed to Pope's defeat at Second Bull Run August 29-30. During the invasion of Maryland, Jackson won distinction at the Battle of Antietam on September 17, and was promoted to lieutenant general in October of 1862. At Fredericksburg he commanded the right flank in December and finally at Chancellorsville, Jackson fought his last battle on May 2, 1863.

Jackson led a brilliant flanking maneuver against General Joe Hooker at Chancellorsville, but in the midst of this victory he was mistakenly shot by his own troops while scouting after dark. The Confederacy prayed for Jackson's recovery, and he showed some initial signs of rallying. But eight days after the battle, Stonewall Jackson died, and much of the South's hope for victory died as well.

Dr. Hunter McGuire was the 27-year-old medical director of Jackson's Corps. He had graduated from Winchester Medical Academy with an M.D. at the age of 20. When McGuire first presented himself to Jackson in 1861, Jackson merely stared back at him and dismissed him to his quarters.

Several days passed before the confused McGuire received orders appointing him a surgeon. Later, when McGuire and Jackson became better

acquainted, the physician asked the general why his appointment had been initially delayed.

Jackson answered, "You looked so young, I sent to Richmond to see if there was some mistake."¹ McGuire soon came to know his most famous patient well, as the general had a life-long concern about his health. Some historians have even suggested that Jackson was a hypochondriac.²

Many of Jackson's habits and beliefs were indeed curious, such as holding his right arm over his head. He believed this position helped favor the correct balance of blood in his system.

He also maintained an erect posture while sitting and standing, so as "not to bend the digestive organs." Jackson believed that pepper made his left leg ache and was known on one occasion to bring stale bread to dine on at a dinner party, and he supposedly sucked on a lemon during an entire battle.

Jackson was a very religious man in the Old Testament tradition and he was often mistaken to be in prayer when he elevated his right arm. He attended church as often as possible and frequently arranged services for his men in the field. Jackson, who required large amounts of sleep, invariably dozed off during the sermons.

Despite his eccentricities, Jackson was revered by his men and all Southerners. His death after Chancellorsville was a tremendous blow to Lee and the Confederacy never fully recovered from his loss. Some have even speculated that the outcome of Gettysburg and perhaps the war itself would have been altered if Jackson had survived.

After falling wounded at Chancellorsville, Jackson left the battlefield supported by two aides for a short distance before being placed on a litter. One of the litter bearers was shot and went down, causing the general to be thrown to the ground. Jackson was placed back on the litter and carried a few hundred yards further where Dr. McGuire was found with an ambulance. The doctor knelt down to examine Jackson and said, "I hope you are not badly hurt, General."

"I am badly injured," Jackson replied, "I fear I am dying. I am glad you have come. I think the wound in my shoulder is still bleeding."³

Dr. McGuire observed that Jackson's clothes were saturated with blood and saw that the wound in the left arm was bleeding briskly. McGuire applied compression on an artery and called for a light. The bandage had slipped and he adjusted it. McGuire quickly ascertained that Jackson's hands were cold, his skin clammy, and his face and lips pale, all classic signs of hemorrhagic shock. Jackson refused to admit any discomfort, but was given morphine and whiskey nevertheless before transport to a nearby field hospital.

Once at the hospital, McGuire determined that surgery was necessary. When he informed Jackson, the general replied, "Yes, certainly Dr. McGuire, do for me whatever you think best." Chloroform was administered and Jackson remarked, "What an infinite blessing," as he slipped into unconsciousness.³

McGuire first extracted a round ball which had lodged under the skin of the right hand. It had entered the palm and fractured two bones. Next, as described by McGuire, "The left arm was then amputated, about two inches below the shoulder, very rapidly, and with slight loss of blood, the ordinary circular operation having been made."³

Amputation was by far the most common surgery performed during the Civil War, accounting for approximately 75 percent of all operations. Antiseptic technique was not practiced and contaminated instruments and non-sterile conditions resulted in many wound infections. However prompt amputation undoubtedly also saved many lives by converting a traumatic wound to a surgical wound, improving survivability.

Surgeons found that amputations performed within 48 hours of an injury were twice as likely to be successful as those performed later. While Confederate medical records are no longer available, their results were probably comparable to Union figures. Union records reveal 5,540 upper arm amputations reported of which 1,273 died from complications, a 23-percent fatality rate.

Jackson tolerated surgery well, despite the blood loss. At about 3:30 a.m., Major Sandy Pendleton arrived to obtain orders for General Jeb Stuart. Jackson tried unsuccessfully to respond. He then slept for several hours and appeared free of pain when he awoke. At about 10 a.m., Jackson experienced a severe and sudden episode of pain in his right side and called for Dr. McGuire. Jackson presumed that he must have injured his side when he struck a stone or stump during the fall from the litter the night before.

McGuire made a careful examination and concluded, "No evidence of injury could be discovered by examination; the skin was not broken or bruised, and the lung performed, as far as I could tell, its proper function."³

By 8 p.m. Sunday, the pain had disappeared and Jackson seemed to be doing well. The following day Lee ordered McGuire to remove Jackson to Guinea's Station, as he feared the Federals nearby might capture him. Early Tuesday morning the ambulance set out and Jackson tolerated the transfer well. Later in the day he became nauseated and asked that a wet towel be placed on his abdomen. Upon arrival, he felt well enough to take bread and tea.

The house where Jackson was to convalesce already contained other wounded, including several cases of erysipelas, which was highly contagious. Dr. McGuire would not allow Jackson to be exposed to the infected soldiers and found for him a small separate building on the grounds which had been used as an office. The general slept well that night. He awoke early Wednesday and, "ate heartily and was cheerful."³

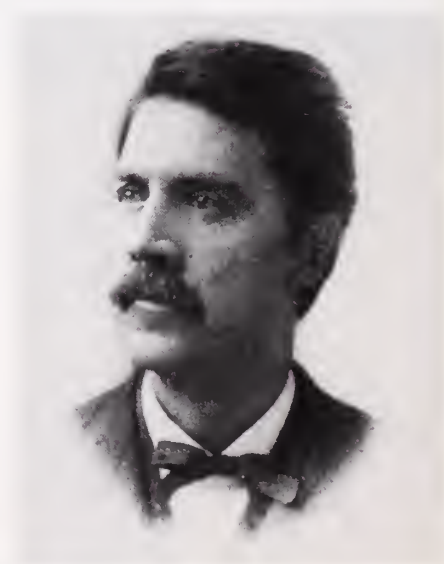
McGuire dressed his wounds and found them to be healing well without signs of infection. Jackson seemed satisfied with his progress and inquired about how long before he could return to the field. About 1 a.m. Thursday, Jackson again became nauseated and asked a servant to apply a wet towel to his abdomen. Jackson did not disturb the exhausted McGuire, who awoke to find his patient again complaining of pain in the right side. After examination, McGuire concluded that Jackson had pleuro-pneumonia of the right chest, presumably secondary to the fall from the litter.

As McGuire speculated, "Contusion of the lung, with extravasation of blood in the chest, was probably produced by the fall referred to, and shock and the loss of blood prevented any ill effects until reaction had been well established, and then inflammation ensued."³

McGuire consulted several other physicians, including an authority on pneumonia. The doctors all concurred on the diagnosis. Jackson's pain decreased somewhat, but the difficult breathing persisted. Cupping was recommended, and hot glasses were applied to the afflicted area to "draw blood."

On Thursday, May 7, Jackson's wife arrived with their five-month-old baby. Jackson rallied somewhat the evening of the seventh, but by Friday the eighth he was again short of breath, restless and febrile. The following day he continued to decline and on Sunday, May 10, 1863, Jackson's doctors all felt sure that he would die. At 3:30 p.m., Jackson spoke his final words, "Let us cross over the river and rest under the shade of the trees,"¹ and died quietly.

McGuire and the other physicians pronounced the cause of death as pneumonia. But a careful analysis of the facts raises the more likely possibility of pulmonary embolism.⁴ The source of the



Hunter Holmes McGuire, MD

pleuro-pneumonia was presumed to be a lung contusion incurred during the fall from the litter. However the fall was only several feet. From this short distance the ribs would absorb most of the blow, preventing injury to the underlying lung. There would also surely have been some external evidence of trauma, yet McGuire found none.

Pleuro-pneumonia is a medical term rarely used today. Pleurisy occurs when inflammation reaches the pleural surface of the lung. In pneumonia which presents with pleuritic chest pain, the term pleuro-pneumonia was often used. In Sir William Osler's 1892 edition of his classic textbook of medicine he comments, "Pneumonia is a self-limited disease, and runs its course uninfluenced in any way by medicine. It can neither be aborted or cut short by any means at our command."

Osler went on to say, "The first distressing symptom is usually pain in the side, which may be relieved by local depletion—by cupping or leeching."

"Pneumonia is one of the diseases when a timely venesection may save life."⁵

Thus according to the thinking of the day and even thirty years later, Jackson's presentation fit with pneumonia. His physicians cannot be faulted for their diagnosis and treatment. A diagnosis of pneumonia could not be confirmed by x-ray, since it was not yet available, but 19th century physicians were adept at eliciting the physical signs of pneumonia, such as crackles on auscultation and dullness to percussion. Yet neither of these classic signs were noted by any of Jackson's physicians.

In addition, the clinical course of terminal pneumonia is usually progressive. In Jackson's case, however, there were two distinct, sudden episodes of deterioration. These occurred on May 3 and May 6, and both episodes were described as being associated with the acute onset of chest pain, dyspnea, fatigue and perhaps fever.

These symptoms are most consistent with pulmonary emboli. There are numerous complications possible following amputation of

an extremity, including nonhealing of the stump, infection, and thromboembolism.⁶ In Jackson's case we know from Dr. McGuire's reports that the wound was healing and there were no signs of infection.

It is known today that the amputee is at great risk for venous thrombosis (15%) and pulmonary embolism (2%) post-operatively.⁶ This is partly due to immobilization of the patient, but more importantly due to the ligation of large veins during the amputation. The ligation causes stagnation of blood, which can lead to thrombus formation and pulmonary embolism.

Even with today's advanced medical technology, it is estimated that as many as 50 percent of pulmonary emboli are undetected by physicians. The current treatment for this condition is intravenous anticoagulation with heparin, which was unavailable in the 19th century.

Thus the fatal outcome of Jackson's condition was unpreventable. However history should record that General Stonewall Jackson most likely died from pulmonary embolism, not the traditionally accepted diagnosis of pneumonia.

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The Author

Joe D. Haines, MD, is the medical director of Employees' Healthcare Center of Stillwater.

Photo Credits

1. Thomas J. "Stonewall" Jackson, The National Archives, Photo courtesy of The Museum of the Confederacy, Richmond Virginia.
2. Hunter Holmes McGuire, MD, later served as the 45th president of the American Medical Association from 1893-94. Photo courtesy of the American Medical Association Archives.
3. *The Death of Stonewall Jackson*, Currier and Ives lithograph, 1872, courtesy of The Museum of the Confederacy, Richmond Virginia.

Sixty-One-Year-Old Woman with Obstructive Jaundice

Larry Pennington, MD, Barbara Bane, MD, Bob Eaton, MD, Kelly Means, MD,
Russell Postier, MD

Case Presentation

Kelly Means, MD

Russell Postier, MD

Department of Surgery

History of Present Illness. A 61-year-old white female presented to the surgical clinic and complained of loose stools that were greasy and floated in the toilet. She reported a two-week history of pruritus and "being yellow." She also reported a 60-lb. weight loss over the last six months even though she was not attempting to lose weight.

Past Medical History. The patient had a history of hypertension. Her past surgeries included an appendectomy and a total hysterectomy with a bilateral salpingo-oophorectomy. She denied alcohol or tobacco use. Her only medication was Lisinopril 10 mg per day. There were no known allergies.

Physical examination. The patient was not in distress, but was icteric. There were no palpable cervical masses. Her chest, breast, and cardiovascular examinations were all unremarkable. On abdominal examination there were no palpable masses. Bowel sounds were present. There was no periumbilical lymphadenopathy. The rectal examination revealed no masses and the stool was guaiac negative. Specifically, there was no evidence of studding in the cul-de-sac. The remainder of the examination was unremarkable.

Hospital Course. The initial diagnosis was obstructive jaundice. An exploratory laparotomy was done and we found a mass in the head of the pancreas along with a dilated common bile duct and gallbladder. The exploration revealed no liver metastases and no invasion of major vessels. A pylorus-preserving pancreaticoduodenectomy (modified Whipple procedure) was done. The nasogastric tube was removed after approximately four days. She was started on a clear liquid diet on post-operative day 4, and on post-operative day 6 was discharged from the hospital on a

regular diet. Intra-operatively-placed drains were removed prior to discharge. One month after surgery, a follow-up examination found her to be doing well without any complications.

Radiology

Bob Eaton, MD

Department of Radiology

Pre-operative evaluation of the patient included a chest x-ray and an abdominal computerized tomographic (CT) scan. The chest x-ray was normal. The CT scan of the upper abdomen showed intrahepatic biliary ductal dilatation and a slight enlargement of the gallbladder. There was no obstruction of the portal system. The body and tail of the pancreas were mildly atrophic. The

Laboratory

WBC	9,200
Hgb	9.1 g/dl
Hct	26.6%
Platelets	184,000
Na	135 mEq/l
Cl	101 mEq/l
CO ₂	23 mEq/l
K	3.9 mEq/l
Glu	244 mg/dl
Cr	0.7
BUN	8 mg/dl
Alk phas	548 IU/l
Total bilirubin	2.0 mg/dl
Direct bilirubin	0.9 mg/dl

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common bile duct and the common hepatic duct were dilated. The head of the pancreas was enlarged and contained a mass with a central area of low density suggestive of necrosis or cystic change. There may also have been some cystic changes in the head of the pancreas. There was a smooth, roughly teardrop-shaped mass within the left adrenal gland. The right adrenal was normal. No lymphadenopathy suspicious for metastases was identified. The differential diagnosis for the pancreatic mass included 1) carcinoma of the head of the pancreas, 2) microcystic cystadenoma, and 3) chronic pancreatitis. The mass in the left adrenal gland most likely represented a nonfunctioning adrenal adenoma. A metastatic lesion or granulomatous disease could also be possibilities.

Case Discussions **Larry Pennington, MD** **Department of Surgery**

The case presented was a 61-year-old female with painless jaundice, weight loss, and pancreatic dysfunction with steatorrhea and hyperglycemia. The physical examination was reported as normal. The gallbladder was not palpable as it might be with obstructive jaundice and she did not have hepatomegaly as one might observe with hepatitis. She was previously healthy and there was no past history of pancreatitis.

The radiologic studies revealed obstruction of the biliary tree and a mass in the head of the pancreas. The two most likely diagnoses are pancreatic cancer and pancreatitis.^{1,2} Other causes of distal bile duct obstruction such as ampullary carcinoma, distal bile duct cancer, and an impacted stone are less likely because of the mass in the head of the pancreas.

We will first discuss the causes of pancreatitis. In our country and most Western countries, alcohol is the primary cause of pancreatitis. However, there was no mention of alcoholism or routine alcohol use in this woman. In addition, there was no history of the other likely causes of pancreatitis: no abdominal trauma, no medications like azathioprine or steroids that are known to cause pancreatitis, and no history of familial pancreatitis.

The laboratory data included an elevated glucose, but I do not know if the patient was diabetic or on insulin. Both pancreatitis and carcinoma of the pancreas are associated with elevated serum glucose. The amylase was normal. The hematocrit was low. The patient's anemia may have been related to malabsorption, steatorrhea

and vitamin deficiency, or occult gastrointestinal blood loss. The stool was hemocult negative.

With obstructive jaundice the clinician's first step is usually an ultrasound examination looking for dilated hepatic bile ducts, either intrahepatic or extrahepatic. If the biliary system is normal by ultrasound, hepatitis or cholestatic jaundice should be much higher in the differential diagnosis. We do not have the results of an ultrasound examination on our patient, but we do have a CT scan showing dilated intrahepatic ducts and a dilated common bile duct indicating some sort of distal extrahepatic biliary obstruction. There were no stones visualized on the radiologic studies.

In addition to biliary obstruction, her CT scan showed a mass in the head of the pancreas, making carcinoma a likely possibility. Pancreatic ductal adenocarcinoma is by far the most common pancreatic tumor, although microcystic cystadenoma (as mentioned by Dr. Eaton) should certainly be considered with this radiologic picture. Also, there is an uncommon form of pancreatitis localized in the head of the pancreas which may present as a mass.³

Before we proceed further we should address the adrenal mass mentioned by Dr. Eaton. The two most likely diagnoses are non-functioning adrenal cortical adenoma (since the patient had no symptoms associated with a functional adrenal mass), and metastatic disease. Pancreatic carcinoma metastasizes to the adrenal gland in approximately 10 percent of cases. The literature does not discuss how often metastasis to the adrenal gland occurs in the absence of other metastases. Certainly, regional lymph node and hepatic metastases are more common than an isolated adrenal metastasis. Our patient has no other evidence of metastatic disease and I think the adrenal mass is unrelated to the pancreatic mass.^{3*}

This does not appear to be a functional adrenal mass since there was no mention of Cushing-like appearance or hypertension as one might think of with a mineralocorticoid-producing tumor or a pheochromocytoma. Primary adrenal cortical carcinoma is another possibility. Two-thirds of adrenal cortical carcinomas produce hydroxysteroids. Patients with incidental adrenal masses should be evaluated by obtaining a 24-hour urine specimen for 17-ketone and hydroxysteroids. If these tests are normal, a dexamethasone suppression test is performed since some adrenal cortical carcinomas producing abnormal steroids will have normal urine levels but not suppress as they would with dexamethasone.

Functional tumors should be excised. Non-functional tumors may be left alone. However, if a nonfunctional adrenal tumor is larger than 6 cm, it should be surgically excised. If the tumor is less than 6 cm it may be followed by serial CT scans. This patient's adrenal mass more likely represents a small, benign, non-functioning adenoma and was appropriately left alone.⁴

Further work-up of the pancreatic mass might include endoscopic retrograde cholangiopancreatography (ERCP) to look at the pattern of pancreatic ductal obstruction. Pancreatic fluid for cytology, duodenal/biliary tract brushings, or periampullary biopsy are additional possible diagnostic procedures. Ampullary carcinoma, duodenal carcinoma, or a distal bile duct carcinoma may cause obstructive jaundice and all have a more favorable prognosis than carcinoma of the pancreatic head. Positive biliary brush or fluid cytology can be helpful if positive and provide the diagnosis in about 50 percent of cases. Negative cytology does not exclude the possibility of carcinoma.

Pre-operative percutaneous biopsy was not indicated in this patient because the tumor appeared resectable. Percutaneous biopsy is indicated in patients who are not surgical candidates (e.g. patients with large tumors that are not considered resectable) when palliative chemotherapy or radiation therapy is considered. Seeding of the biopsy tract with tumor is common enough to prohibit its use in patients with potentially resectable tumors.

Pancreatic lymphoma is another consideration. Patients with pancreatic lymphoma usually present with a fairly large palpable pancreatic mass and peripheral adenopathy. Percutaneous biopsy is indicated if pancreatic lymphoma is considered likely. It is unlikely that this woman has pancreatic lymphoma.

Percutaneous transhepatic cholangiography is another study often performed on patients with obstructive jaundice, especially if a bile duct cancer is suspected. It is especially helpful in determining the proximal extent of the tumor. The percutaneous catheters are often passed through the obstruction into the duodenum and decompress the biliary tree. The catheters provide a guide during surgery and also provide pre-operative information about the nature of the obstruction. If pancreatitis involves the head of the pancreas, a stricture in the bile duct may develop since the bile duct runs through the pancreas in 75 percent of people. In about 20 percent of people, the duct is adjacent to the pancreas but not encased by the pancreas; in another 5 percent the duct is

truly extrapancreatic. The biliary stricture is usually long and tapering with pancreatitis and usually short and rather abrupt with pancreatic cancer.

Serologic tumor markers such as carcinoembryonic antigen or a CA 19-9 can also be performed. When positive, tumor markers are helpful. Currently, there are no tumor markers specific or sufficiently sensitive for the definitive diagnosis of pancreatic cancer. Existing tumor markers may be elevated in patients with other gastrointestinal malignancies and are not sufficiently sensitive to accurately diagnose pancreatic cancer when the tumor is small and surgically resectable.

Approximately eighty-five percent of pancreatic tumors are ductal adenocarcinomas. The ductal epithelium only makes up about 5 percent of the cells of the pancreas. The proliferative stimulatory events causing this predominance of ductal involvement in pancreatic carcinogenesis are incompletely defined. Cystadenocarcinoma, cystadenoma or microcystic adenomas are less common lesions, presenting usually in women in their fourth and fifth decades of life. These tumors are usually large at presentation, grow slowly, and have a much more favorable prognosis than pancreatic ductal carcinomas. Other less common pancreatic tumors include papillary tumors, acinar carcinomas, and pancreatic neuroendocrine neoplasms (e.g. insulinoma, gastrinoma, etc.). Usually pancreatic endocrine neoplasms present with symptoms related to hormone production and rarely present with jaundice.

At the time of surgical exploration, the patient was evaluated intra-operatively for extrapancreatic tumor spread, lymph node involvement, peritoneal seeding, and metastatic liver disease. Grossly there was no evidence of extrapancreatic tumor spread. The pancreas was mobilized from its retroperitoneal position allowing palpation of the head of the pancreas. Once the surgeon ascertains that there is a mass in the head of the pancreas and no evidence of extrahepatic spread, the suspected malignancy is biopsied and/or resected. Fine needle aspiration (FNA) cytology, tru-cut needle, or wedge biopsy can be performed. All are helpful if positive and none rule out cancer if negative. The cytopathologists at University Hospital are very experienced at interpreting pancreatic FNA cytology and this is the pancreatic biopsy technique of choice at the OU medical center. However, pancreatic FNAs are not performed without risk and potential morbidity. Speaking from personal experience, it is possible to incite significant pancreatitis with FNA of a benign mass. The experienced pancreatic surgeon is the most accurate judge of the nature of a pancreatic mass.

After the surgeon decides a pancreatic mass is present, likely to be malignant, and resectable, surgical resection is undertaken. Resection includes removing the distal third of the stomach, the distal bile duct, the head of the pancreas, the duodenum and the proximal jejunum. Reconstruction is by reconnecting the pancreas, bile duct, and stomach to the proximal small intestine. In this case, the gastric pylorus was preserved and the distal stomach not resected in a modification of the classic Whipple procedure. The surgeon inches down the duodenum to just below the pylorus, preserving it and perhaps providing the patient a better result in terms of gastrointestinal function. The dumping syndrome, marginal ulceration, and other problems that are associated with the standard Whipple procedure may be less likely with this modification. Furthermore, a pylorus-preserving procedure can be performed without any detriment to the cure rate if the surgical margins are free of tumor. However, this modification remains a topic of surgical debate.⁵

There is significant risk with pancreaticoduodenectomy. It is a big operation. However, results have improved dramatically. Fifteen years ago, pancreaticoduodenectomy would require six to eight hours and was associated with a 15- to 20-percent operative mortality (death within 30 days of the operation or during the same hospitalization) in most series. Today, pancreaticoduodenectomy is routinely done in three or four hours with less than 5 percent operative mortality. Dr. John Cameron of Baltimore was among the first surgeons to perform a large series with low mortality. He demonstrated that as individual surgeons gain more experience, they become more adept and operative complications decline.

The most significant operative complication is a pancreatic leak. The pancreatic stump is drained into the bowel and a leak at this anastomosis is the most common and feared complication. It was more significant before the days of parenteral nutrition since the treatment included resting the bowel, and malnutrition often became an important factor contributing to morbidity.

If the pancreatic adenocarcinoma is resectable and if the nodes are negative, the patient has a 50 percent five-year survival rate. Most patients, however, have regional lymph node metastasis and their five-year survival rate is about 5 percent or about the same as their operative mortality.

The patient can still benefit from surgery even if the pancreatic mass is not resectable for cure. Resection decreases pain, improves hepatic function and preserves gastrointestinal patency while lowering the tumor burden. If the tumor is not

resectable because of invasion of the portal vein or tumor encasing the superior mesenteric artery or because of extrapancreatic tumor spread, bile duct drainage is performed through either a cholecystojejunostomy, a choledochoduodenostomy, or more commonly a choledochojejunostomy. A gastrojejunostomy is performed if there is any chance of duodenal obstruction.

Most patients with unresectable pancreatic cancer only live six to nine months; with palliative chemotherapy and radiation therapy, they may live 12 months. The life expectancy for unresectable pancreatic cancer is fairly short, and well within the functional life of a percutaneous stent placed to relieve jaundice and itching.

Patients with ductal adenocarcinoma in the head of the pancreas present with weight loss, jaundice and pain, and are most commonly in the seventh decade. There is a slight racial predominance of blacks over whites, and males are more commonly affected than females. Pancreatic ductal adenocarcinoma is increasing in frequency. There are probably 280 to 300 patients in Oklahoma dying each year with pancreatic carcinoma. Pancreatic cancer is the fifth leading cause of cancer death in the United States (behind lung, breast, prostate, and colon cancer). Ninety percent of patients with pancreatic cancer die within the first year of diagnosis. Most periampullary cancers (85 percent) are pancreatic carcinomas; ten percent are ampullary; and five percent are distal bile duct cancers. Carcinomas of the ampullary region and distal bile duct have a much more favorable prognosis.

Research on premalignant and precursor lesions in pancreatic adenocarcinoma conducted on research animals by Dr. Postier, Dan Brackett, Dr. Stan Lightfoot and others in the O.U. surgical research group shows a steady progression from inflammation to proliferation to carcinoma in situ to invasive carcinoma.⁶ Smoking, elevated cholecystokinin, fatty diet, previous gastric surgery, bile salt abnormalities, Crohn's disease, and possibly a previous history of cholecystectomy increase the risk of pancreatic cancer.⁷ Coffee, alcohol, and chronic pancreatitis do not have a proven association with an increased risk of pancreatic cancer.

In considering therapy for unresectable pancreatic cancer, there are some new experimental agents that are being tried. Standard palliative therapy includes 5-fluorouracil on a weekly basis and external beam radiation therapy. There is some promise with combined chemotherapy and radiation therapy. Postoperative therapy with 4000 rads and 5-fluorouracil increases the mean sur-

vival rate from 12 months to 20 months in resected patients and the two year survival percentage from 10 percent to about 40 percent. The surgical approach may include tumor resection, relief of obstruction of the bile duct and/or stomach, and pain management. Pain may be controlled in unresectable tumors by injecting the celiac axis sympathetic chain with 50 percent alcohol or phenol, for several months of pain relief in 80 percent of patients. Injection of the celiac axis sympathetic chain can also be performed percutaneously.

We have made some progress during the last 20 years. Twenty years ago when I started my medical school training, operative mortality from a Whipple operation was widely reported in the literature as 20 to 25 percent. Now it is less than five percent. Anesthesia deserves credit, intensive care units deserve credit, surgeons deserve credit, earlier radiologic diagnosis deserves credit, and the internists who evaluate the patient with the nondescript symptoms of vague abdominal pain and weight loss deserve credit. All these combined efforts have brought about better results. However, pancreatic cancer remains a highly lethal disease and more work and further progress in its early diagnosis and treatment are needed.

Pathology

Barbara Bane, MD

Department of Pathology

I agree with the previous discussants, Drs. Eaton and Pennington, in considering the major differential diagnoses in this case to be pancreatic neoplasm versus chronic pancreatitis. Chronic pancreatitis is the nonmalignant disease which most frequently causes a false positive clinical diagnosis of pancreatic cancer. Among the various pancreatic tumors that can cause obstructive jaundice, pancreatic ductal adenocarcinoma is the most common tumor, but other pathologic processes need to be included in the differential diagnosis. For example, a tumor of the ampulla of Vater, duodenum, biliary tract, or retroperitoneum may secondarily involve the pancreas and produce an intrapancreatic mass and obstructive jaundice. Occasionally, lymphoma can present initially as a pancreatic mass, and metastatic cancer from some other primary site such as lung or kidney may present initially as a pancreatic tumor.

From a brief review of normal histology, we recall that the pancreas consists of three major components. First, there is an exocrine component composed of variably-sized ducts and acinar structures which produce various digestive enzymes. Secondly, there is an endocrine com-

ponent composed of the islets of Langerhans. The third component consists of stromal tissue. In the normal adult there is very little fibrous or adipose tissue, but both elements increase with age. Tumors originating within the pancreas can arise from or differentiate towards any one of these components and produce tumors of the exocrine pancreas, pancreatic endocrine neoplasms, or, more rarely, stromal tumors.

Table 1 shows a simplified list of some of the tumors encountered in the pancreas. The most common pancreatic tumor is derived from ducts and is known as ductal adenocarcinoma. It comprises 85 percent of all malignant tumors of the pancreas.⁸ Approximately two-thirds of pancreatic ductal adenocarcinomas will be located in the head of the pancreas and potentially amenable to resection through partial pancreatectomy. Other pancreatic tumors less common than ductal adenocarcinoma include cystadenoma and cystadenocarcinoma, acinar cell carcinoma, and a variety of papillary and cystic neoplasms.^{8,9} Since this patient did not present with a paraneoplastic syndrome, pancreatic endocrine neoplasms (islet cell tumors) would score low on our differential list. Also, pancreatic endocrine neoplasms tend to occur more commonly in the body and tail of the pancreas. Primary sarcomas of all types occur in the pancreas but are relatively rare. As mentioned, malignant lymphoma and metastatic carcinoma rarely present initially in the pancreas.

The pathologist sometimes plays an important

Table 1. Tumors of the Pancreas*

Tumors with ductal/acinar differentiation
Ductal adenocarcinoma
Adenosquamous and squamous carcinoma
Pleomorphic and sarcomatoid carcinoma
Cystadenoma/cystadenocarcinoma
Papillary and solid epithelial neoplasm
Acinar cell carcinoma
Pancreatic endocrine (islet cell) tumors
Sarcomas, all types
Other
Malignant lymphoma
Metastatic carcinoma

*This is a simplified list and includes only some of the more commonly encountered tumors of the pancreas.

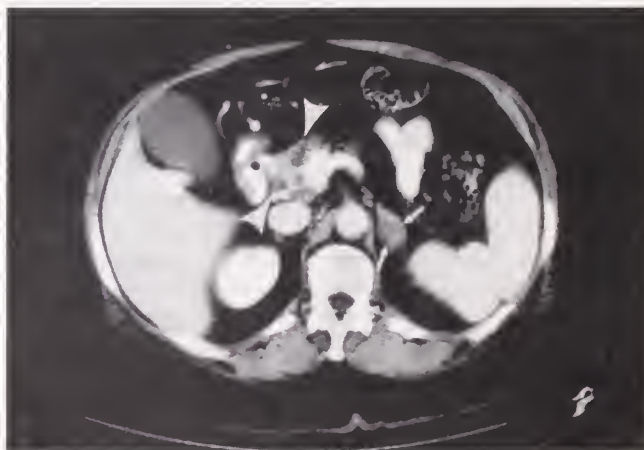


Figure 1: Abdominal CT scan showing a partially cystic or necrotic mass in the head of the pancreas (large arrows) and an enlarged left adrenal gland (small arrows).

role in either the preoperative or intraoperative evaluation of a patient with a pancreatic mass and obstructive jaundice. The pancreas, because of its retroperitoneal location, is a somewhat difficult organ to biopsy. Also, as described by Dr. Pennington, there is a morbidity associated with open tissue biopsy because of the potential release of pancreatic digestive enzymes. Because of the risk associated with open biopsy, cytologic evaluation through fine needle aspiration (FNA)¹⁰ has become increasingly popular in many medical centers.

Intra-operative or pre-operative FNA or core needle biopsy require a team approach and clear communication among the surgeon, the radiologist, and the pathologist. Pre-operatively, the radiologist can accurately localize the lesion under radiologic guidance for diagnostic FNA. Often multiple aspirations or biopsies are needed in order to obtain representative diagnostic tissue. A caveat is that the diagnosis of chronic pancreatitis does not necessarily exclude the presence of carcinoma. Usually the diagnosis of a moderately or poorly differentiated ductal adenocarcinoma will not be a diagnostic challenge to the cytopathologist or surgical pathologist if a representative cytology aspirate or tissue biopsy is obtained. An FNA from a moderately to poorly differentiated adenocarcinoma will show cells with nuclear membrane abnormalities and nuclear enlargement diagnostic of malignancy. Likewise, histologic sections will contain moderately to poorly formed glandular structures with cytologic atypia corresponding to a moderately to poorly differentiated ductal adenocarcinoma. Well-differentiated ductal adenocarcinomas composed of well-formed glandular structures, however, can be extremely difficult to differentiate from chronic pancreatitis on FNA or frozen section evaluation.^{10, 11, 12}

The problems which confound the surgical pathologist and cytopathologist during intra-operative frozen section or pre-operative/intra-operative FNA evaluation are usually two-fold. The first is that chronic pancreatitis may co-exist with carcinoma;^{13, 14} in one series it was estimated that at least 10 percent of patients with pancreatic carcinoma have an extensive chronic pancreatitis which may mask an associated carcinoma.¹³ Cancer-associated pancreatitis arises secondary to tumor causing obstruction of the ducts and inducing inflammation, fibrosis, and

distortion of the adjacent parenchyma. A tissue biopsy or FNA diagnosis of chronic pancreatitis, therefore, may not be fully representative and may be associated with a carcinoma which was not sampled.

The second major problem related to the cytologic and frozen section evaluation of pancreatic masses has to do with the fact that cells arising from inflammatory processes like chronic pancreatitis may demonstrate a degree of cellular atypia which actually mimics carcinoma. FNA specimens from chronic pancreatitis may demonstrate a degree of cytologic atypia which is comparable or even surpasses the cytologic atypia seen in a very well differentiated ductal adenocarcinoma. And vice versa, deceptively bland appearing ducts obtained from a well-differentiated adenocarcinoma may mimic reactive or regenerative changes seen in chronic pancreatitis. This is another of the problems that may confound the cytologic evaluation of pancreatic masses. Similar problems may confound the surgical pathologist particularly during intra-operative frozen section evaluation.

What are the histologic features of chronic pancreatitis versus ductal adenocarcinoma? Chronic pancreatitis is characterized by stromal fibrosis and lobular atrophy of duct and acinar structures. The islets of Langerhans are often also affected and often destroyed. Sometimes, however, chronic pancreatitis is associated with a pseudoneoplastic proliferation of islet cells which can provide an additional diagnostic challenge to the surgical pathologist. The features of ductal adenocarcinoma, on the other hand, include a dense stromal fibrotic reaction and a tumor growth pattern which is often characterized by a haphazard ductal arrangement. The abnormal ductal prolifera-

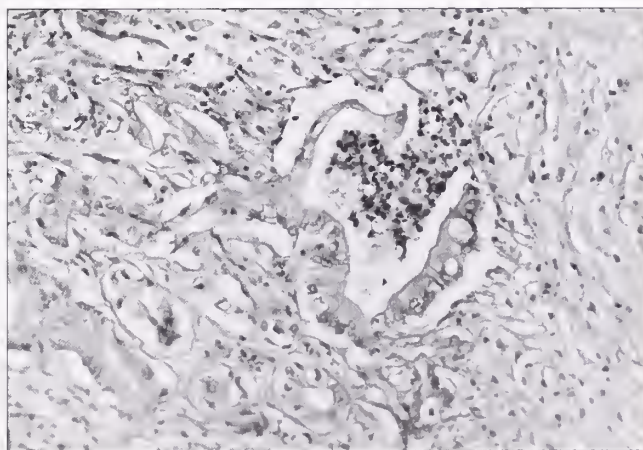


Figure 2: A well-differentiated pancreatic ductal adenocarcinoma showing well-formed glands with intraglandular tumor diathesis.

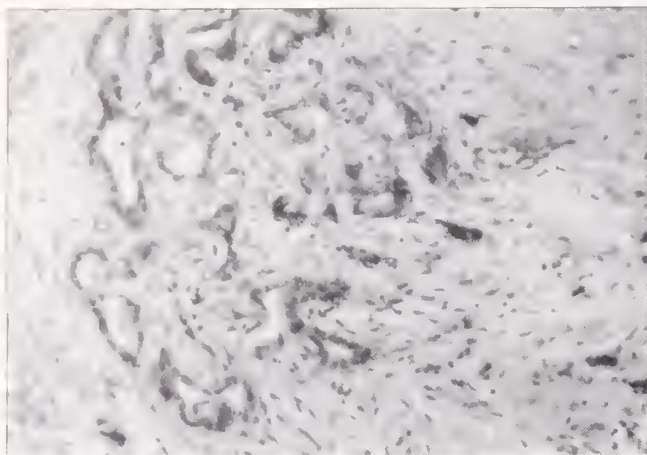


Figure 3: Chronic pancreatitis has atrophic ductal structures which mimic an infiltrating carcinoma. (Photo courtesy of Dr. Jan Pitha, Oklahoma City Veterans Affairs Medical Center.)

tion may include irregular or incomplete glandular elements or complex cribriform structures.

One of the most diagnostically challenging and difficult problems for surgical pathologists is the differentiation of chronic pancreatitis from well differentiated adenocarcinoma. Figures 2 and 3 illustrate the diagnostic difficulties which may be encountered. Can you tell which of these histologic pictures represents ductal adenocarcinoma and which represents chronic pancreatitis? Figure 2 shows a fairly well-formed glandular structure, the lumen of which is partially filled with some inflammatory cells and the stroma contains a modest sprinkling of inflammatory cells. One might think that this is an example of chronic pancreatitis. It is, quite the opposite, an example of a very well differentiated adenocarcinoma. The degenerated nuclear material and inflammatory cells within the duct lumen are indicative of a tumor diathesis. Figure 3, on the other hand, represents an example of chronic pancreatitis in which atrophic ducts present a haphazard infiltrative appearance mimicking an invasive carcinoma.

In the current case, no FNA or tissue biopsies were obtained for pre-operative or intra-operative pathologic evaluation. The first patient specimen that arrived in the pathology laboratory was the product of a modified Whipple resection which included the head of the pancreas, duodenum, common bile duct, and gall bladder. The common bile duct was probe patent and there was no evidence of tumor in the ampulla of Vater or distal common bile duct. There were no stones in the gallbladder, the cystic duct, or the common bile duct. The head of the pancreas contained a firm pale tan-white mass, approximately 5.0 x 2.5 x 2.5 cm which had irreg-

ular borders. The mass was associated with very large dilated peripancreatic blood vessels. No lymph nodes grossly suspicious for metastatic tumor were identified.

Initial histologic evaluation of the pancreatic mass showed broad areas of fibrosis and lobular units with atrophic ducts and acinar structures. Well-formed ductal structures with a degree of nuclear atypia which we originally interpreted to be within the range of reactive changes associated with chronic pancreatitis were also identified. Communication with our surgical colleagues, however, disclosed that our initial pathologic impression of chronic pancreatitis did not coincide with their very high clinical suspicion of pancreatic carcinoma.

Additional tissue sections submitted for histologic evaluation subsequently revealed more complex ductal structures with papillary infoldings, haphazardly distributed well-formed ducts, and incomplete ducts in which the lumens were partially filled with degenerated tissue debris indicative of an underlying tumor diathesis. Special stains (mucicarmine) demonstrated that these well-formed ducts were lined by a tall columnar epithelium which showed evidence of intraluminal mucin production (a feature characteristic of pancreaticobiliary duct epithelium).

The tumor also showed focal perineural invasion and invasion of the islets of Langerhans. Destruction of the pancreatic endocrine cells by tumor explains why many patients with pancreatic cancer develop secondary diabetes mellitus. Additional tissue sections also identified four small lymph nodes which contained microscopic foci of metastatic adenocarcinoma. Histologic evaluation of the metastatic tumor foci demonstrated deceptively bland appearing ductal structures lined by epithelium that had minimal cytologic atypia and lacked significant mitotic activity (Fig. 4). The largest focus of metastatic adenocarcinoma was 5 mm in greatest dimension and was associated with focal extranodal tumor extension. These microscopic foci of metastasis could not be detected intra-operatively and could not be detected upon gross examination of the specimen. Identification of these microscopic tumor metastases was only accomplished through generous sampling of pancreaticoduodenal and peripancreatic tissue.

Our final pathologic diagnosis was that of a very well-differentiated ductal adenocarcinoma of the pancreas with involvement of four of 18

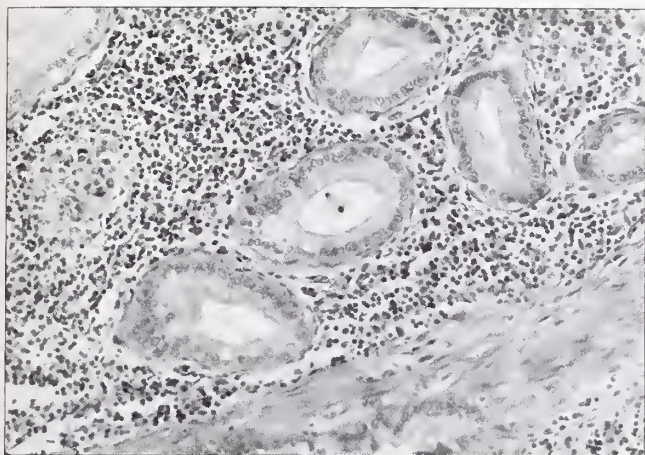


Figure 4: Metastatic foci of well-differentiated pancreatic ductal adenocarcinoma in regional lymph nodes have a deceptively blond cytologic appearance.

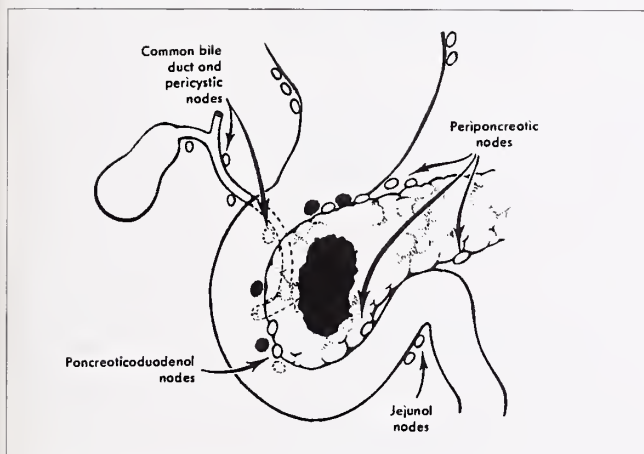


Figure 5: Schematic illustration of the mass lesion in the head of the pancreas. Pathologic evaluation and staging revealed a 5.0 cm pancreatic ductal adenocarcinoma with metastasis to 4 of 18 regional lymph nodes. (Illustration courtesy of Dr. Mott Kido, OU Dept. of Pathology.)

regional lymph nodes (two peripancreatic and two pancreaticoduodenal nodes). The ductal adenocarcinoma was associated with an extensive chronic pancreatitis. The pathologic (p) TNM stage was pT2 since tumor focally involved peripancreatic tissue and pN1 due to regional lymph node metastasis. Since there was no FNA or tissue biopsy available for the evaluation of distant metastasis, pathologic assessment of distant metastasis would correspond to MX (status of distant metastasis unknown). In terms of clinical staging, since there was no clinical evidence of metastatic disease, this patient would fall into a clinical stage III category.

Questions from the Audience:

Q. Do you think the patient's weight loss is due to steatorrhea and malabsorption or tumor effect?

How do you explain the discrepancy between the patient's jaundice and her low bilirubin level?

Dr. Pennington: I presume that the patient's weight loss was not from tumor load or appetite loss as many patients with large tumors experience, but from malabsorption from her steatorrhea and her pancreatic duct obstruction. I agree that there is some discrepancy between the recorded history of jaundice and the low bilirubin level.

Q. How is a patient with suspected pancreatic cancer evaluated for regional lymph node metastasis?

Dr. Pennington: Intra-operative evaluation is made by direct visualization of the nodes. Often there are palpable hyperplastic nodes in chronic pancreatitis or other inflammatory processes of the biliary system located around the bile ducts and distal common bile duct. These lymph nodes can be biopsied and sent for frozen section diagnosis. If regional lymph nodes are positive, then we would do a palliative procedure most of the time. There is some evidence that a Whipple procedure is effective palliation for people with pancreatic head cancer and some surgeons would perform a Whipple procedure for palliation.

Q. Are there any animal research models for the study of pancreatic cancer?

Dr. Postier: We are investigating a hamster model of pancreatic cancer in our surgical research laboratory that involves the intraperitoneal injection of a carcinogen N-nitrosobis (2-oxopropyl) amine. Histologic studies show that these animals initially develop a lesion that looks like chronic pancreatitis. They then develop atypia in areas of chronic pancreatitis which then progresses to carcinoma in situ and eventually to invasive cancer. What we have been able to show in hamsters is that these areas of chronic pancreatitis are clearly abnormal in that they have an abnormal DNA histogram with an elevated G2S fraction and often hyperdiploid peaks. Markovian analysis (a computer-based cytologic evaluation of nuclear changes which assesses approximately 24 different nuclear abnormalities) demonstrates clear-cut abnormalities in the cells derived from chronic pancreatitis compared to normal cells. We believe that histologic changes that look like chronic pancreatitis may actually represent a preneoplastic lesion. Whether or not the chronic pancreatitis one sees in response to a carcinogenic stimulus is the same chronic pancreatitis that one sees in response to an inflammatory stimulus is unknown. There is

not a chronic pancreatitis model in the hamster, but there are several chronic pancreatitis models in the rat. In our research laboratory, we have taken a rat chronic pancreatitis model and transferred it to the hamster. What we found is that hamsters and rats are different. Hamsters don't tolerate the insult of chronic pancreatitis as well as rats and we don't have enough surviving hamsters yet to evaluate whether the inflammatory-induced lesion has the same morphologic nuclear and DNA abnormalities that we see in the carcinogen-induced lesions.

Q. Did the patient undergo pre-operative endoscopic ultrasound studies?

Dr. Pennington: Radiologists using spiral rapid infusion CT scans can usually determine whether or not the superior mesenteric vein and/or artery or portal vein is invaded by tumor, but not always. We still occasionally get to the operating room with a patient we think has resectable disease, and find that they are not resectable because of invasion of these structures. Pre-operative endoscopic ultrasound studies can be very helpful in determining whether these vessels are invaded by tumor. The one fear I have relates not to the sensitivity but rather to the specificity of endoscopic ultrasound. The only chance these patients have for cure is with surgical resection. I would want to be confident that our endoscopic ultrasound studies performed by gastroenterologists are accurate enough that we could decide not to operate on patients based on their findings. I think that endoscopic ultrasound is the wave of the future and my impression is that it is very specific.

Q. How is the patient doing clinically?

Dr. Postier: The patient was seen in follow-up about a month ago and was continuing to do well. I would clarify one thing. At the time of operation, we did palpate her left adrenal gland. She had a small but very smooth and benign appearing tumor. We elected not to resect it.

Q. How often does chronic pancreatitis coexist with pancreatic adenocarcinoma?

Dr. Bane: Some of what we initially interpreted as chronic pancreatitis in this case was in retrospect a very well differentiated adenocarcinoma. However, chronic pancreatitis and ductal adenocarcinoma often do coexist and this presents a major diagnostic problem and pitfall for pathologists. Pancreatic ductal adenocarcinoma and chronic pancreatitis did coexist in this patient. In some studies, approximately

10 percent of pancreatic cancers are associated with extensive chronic pancreatitis.

Q. Is there any evidence that chronic pancreatitis is a premalignant lesion? Are there any known differences between inflammatory-induced pancreatitis and cancer-associated pancreatitis?

Dr. Postier: The OU surgical research group is studying histologic sections of pancreatic cancer and associated areas of what looks histologically like chronic pancreatitis in humans and comparing the DNA abnormalities and Markovian analysis abnormalities. We are evaluating the morphologic nuclear and DNA abnormalities in histologic sections from patients who, based on longevity following pancreatic resection, we are fairly confident had simple chronic pancreatitis. These studies will hopefully provide some data to help answer the question as to whether pancreatic cancer-associated pancreatitis is a premalignant lesion.

Acknowledgement

The presenters of the CPCs would like to acknowledge Drs. Fred Silva and Douglas Fine for their major efforts in organizing the campus-wide OU Clinicopathologic Conferences. We would also like to thank Dr. Jan Pitha for expert pathology input, Drs. Jean Forsberg and Sheila Lynam (former Co-Chief Residents in the Department of Pathology) for their assistance in identifying cases to be presented and Ms. Mary Greear and Mrs. Nelba Harris for excellent secretarial assistance.

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Slow Payment of Medicare Claims

Editor's Note:

The Health Care Financing Administration sent a letter to healthcare insurance firms on Jan. 9, 1998, asking them to slow the payment of Medicare claims to physicians, hospitals and other healthcare providers as part of an effort to save money.

With these changes has come several responses. Following is an editorial by Watonga resident and former UPI war correspondent Earnest Hoberecht, which published in the April 8, 1998, issue of *The Watonga Republican*. A response letter from Donald C. Karns, MD, follows. Karns says he subscribes to the quote that "Eternal vigilance is the price of liberty," and applauds Hoberecht for sharing his opinion on this issue.

Letter to the Editor

Dear Editor:

Do not become ill after July and assume that a doctor will be immediately available.

New rules of the Federal Government's new Medicare Correct Coding Policy will require doctors to spend less time attending to their sick patients and much more time on paper work.

The "so-called" Washington, DC, experts think doctors should be Paper Pushers and not doctors looking after the ill and wounded. The idea behind this wild Washington, DC, rule is to prevent fraud. We all are in favor of that.

However, I read the other day that a government audit of the entire US Government in Washington, DC, revealed their books are in terrible shape. They do not know how much they are spending or where it goes. They do not know how much property they own.

These lousy bookkeepers in Washington want doctors to let people suffer and concentrate on paper work, which they themselves ignore.

All of these new rules are in the 1996 Health Insurance Portability and Accountability Act. A force of 450 FBI Agents will be hired specifically for the purpose of enforcing these sad inhuman regulations. And if you are a Medicare patient the FBI will have complete access to your medical records. Friends, do you want the doctors looking after those who need medical care or do we want doctors filling out forms to please a paper-mad bureaucracy in Washington, DC. I urge you to write your Congressman and Representative in Washington to do something about this rule which is contrary to everything we believe in about medical care.

If the doctors do not fill out the papers correctly, they will be subject to fines up to \$10,000 per incident. It will take the doctors hours and days to complete the newly required paper work. But a doctor can do only so much work in 15 to 30 minutes. I believe that time should go to those who need medical attention and not to bureaucratic paper work.

Do you want to lay in a hospital bed and suffer while your doctor is out filling out some federal government forms?

A doctor is supposed to keep the patient's needs foremost in mind. But all this new paper work burden will certainly wreck his day, his schedule and his availability.

Please write your Senator and Representative in Washington so we can get this situation corrected.

When I am in the hospital, I do not want a doctor to go down the hall and say, "Ernie, I will be back in five or six hours. I have to go fill out some new Medicare forms that are required by the Government."

Earnest Hoberecht

Dr. Karn's Response

Mr. Earnest Hoberecht
Watonga, Okla.

Dear Ernie,

The letter you had published in this past issue of *The Watonga Republican* really hit the mark. Having been in medical practice both before and after medicare came into being, I can say from experience that it used to be a lot more easy to be concerned with patient care in the 1960s than it is now. I have had correspondence with two of my children who are nurses and this government intrusion into life and practice is bothersome to them also. I am enclosing a quote from the Social Security Act, signed into law by President Lyndon Johnson on July 30, 1965, to illustrate the insidious way our government moves into our daily lives. From Title 18 of the Social Security Act:

1801. Nothing in this title shall be construed to authorize any Federal officer or employee to exercise any supervision or control over the practice of medicine or the manner in which Medical services are provided, or over the selection, tenure, or compensation of any officer or employee of any institution, agency or person providing health services; or to exercise any supervision or control over the administration or operation of any such institution, agency, or person.

1802. Any individual entitled to insurance benefits under this title may obtain health services from any institution, agency, or person qualified to participate under this title if such institution, agency or person undertakes to provide him such services.

1803. Nothing contained in this title shall be construed to preclude any State from providing, or any individual from purchasing or otherwise securing, protection against the cost of any health services.

It is doubtful if the Congress of that time could have envisioned the incredible way this law is being implemented now. Thank you for bringing this type of thing to the attention of the public.

Yours Truly,

Donald C. Karns, MD

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'98 ANNUAL MEETING PROCEEDINGS

REPORT OF THE PRESIDENT

Opening Session, OSMA House of Delegates

By David M. Selby, MD

It is with mixed emotions I say "goodbye" as your president. I thank you for the confidence placed in me in representing the Oklahoma State Medical Association this past year. As I have expressed to you in the past, the practice of medicine is a privilege...a privilege which carries many responsibilities and holds significant implications for all of us. As your president, I have taken the responsibilities of my office very seriously and can share with you a sense of accomplishment for the direction our association is taking.



As indicated in our mission statement, it is our responsibility to accept the role of patient advocate. Certainly, this role is addressed daily in the legislative and regulatory process. Under the able direction of the chair of the Council on State Legislation, Dr. Ed Brandt, Jr., our association continually strives to improve the health care delivery system by promoting legislation that is in the best interest of the patients and physicians of Oklahoma and by working to defeat measures detrimental to those goals. This was clearly evidenced last session through the passage of OSMA initiated legislation, such as the Fairness in Managed Care Act, Breast Cancer Protection Act, trauma system development, informed consent, reforms in drive-through delivery and immunization bills. I personally want to thank the members of the Legislative Council and its subcommittees for their dedication and specifically commend our state lobbyist Lynne White, for her significant efforts this past year. I also want to thank the chair of the Council on Governmental Activities, Dr. Richard Boatsman, and our federal lobbyist Mr. John Montgomery for keeping a watchful eye on legislation on the national level. I encourage each of you to become more politically active and support the association endeavors in these

areas. For those of you who gave of your time to talk with legislators on our specific issues, I especially want to say thank you. I also want to commend Jeff Shaver, MD, chair of OMPAC, who with support from other members of the OMPAC Board, have promoted increased participation in and efforts of our PAC.

It is apparent, however, we as physicians need to continually improve our grassroots contacts to further develop effective relationships with our elected representatives. This need became clearly evident during the association's recent efforts to defeat S.B. 1192. By now I am sure you are aware Governor Keating signed into law this measure which now allows optometrists to perform laser eye surgery. To say we were extremely disappointed at the outcome of the legislation would be an understatement. I wholeheartedly concur with the comments of Elliot Finkelstein, MD, President of the American Academy of Ophthalmology, who said, "we believe this action is bad public policy, bad medical policy and a step backward for eye health and safety for the citizens of Oklahoma." Not only is this appalling on a national level, as we are the only state to allow this, but it invites other health care providers to pursue their own programs which may not be in the best interest of our patients.

Oklahoma's medical doctors have a strong track record of championing important patient care issues which protect our patients' health, and that will not change. We will continue to stay the course, advocating for patients' rights and for legislation and rules that protect the public's health.

As to other accomplishments, the association conducted two major searches; one for the OSMA executive director and the other for the director of the Physicians Recovery Program. As chair of the Executive Director Search Committee, I can assure you the committee took their responsibilities very seriously as we diligently worked with a national search firm to screen and interview top candidates

Report of the President *(continued)*

from around the nation. As you know, this process resulted in the Board of Trustees' selection of Mr. Brian O. Foy. Mr. Foy, who has been on the job now for approximately three months, has brought energy, enthusiasm and order to his new position. Early on, he has demonstrated with enthusiasm his many leadership abilities and physician members can comfortably rely upon him to handle the affairs of the association. If you have not had the opportunity to meet with Brian, I would encourage each of you to do so. He is only a phone call away.

Secondly, with regard to the search for the director for our nationally-known and often emulated Physicians Recovery Program, I wish to thank Dr. James D. Funnell, MD, chairman of the Search Committee and the members of that committee for their time and efforts in evaluating candidates for the position. As you know by now, Interim Director Dr. Harold Thiessen was chosen to be the permanent director, and his experience and leadership has contributed to its continuing success.

The AMA Delegation, now totaling 16 in number as a result of our unified status, again represented the association during the past year at the AMA's annual and interim meetings, and as president I had the privilege of attending these meetings. Our delegation enjoys a national reputation for its effectiveness, and their effort combined with other members of the Heart of America Caucus, which includes Kansas, Missouri and Arkansas, adds to its strengths. I want to commend the members of the delegation, and specifically the chair, Dr. Jay Gregory, for their dedication and commitment to our association. Their efforts merit our thanks and continued support.

The past year was another banner year for PLICO, as it enjoyed a financial performance unequaled in the company's history. That performance permitted PLICO to maintain the same rate structure for 1998 as in 1997. We can be proud and pleased with PLICO's performance and be assured our professional liability program is in its best condition ever. We should give credit to Chairman Floyd Miller, MD, and all members of the PLICO Board for their time commitment and efforts and to C.L. Frates & Company for their continued excellent management of this program.

I wish to commend Doris Edge, president of the OSMA Alliance and all the Alliance members for their support of our association. The Alliance is an integral part of the OSMA and a valued resource to the physicians across our state. Their generous contributions to the Education and Research Foundation leave a lasting impact in our communities.

During the past year, a complete review was made of all OSMA Councils, Committees, and Sections, as well as their duties. I am happy to report that under the direction of dedicated individuals, these Councils, Committees and Sections are functioning appropriately and have made tre-

mendous strides in all areas of OSMA activities. Detailed reports of their activities will be presented during this meeting.

There is one legacy I would like to leave with the OSMA, that being our increasing involvement in the electronic communications arena. In an age of daily change in the environment in which we practice, adequate communication and the prompt and accurate dissemination of information is mandatory. Toward this end, our Council on Professional and Public Relations has initiated a change to incorporate the written word of the OSMA Journal and the OSMA News with the vast information available on the electronic highway by recommending the formation of a new Council on Communications. This recommendation will necessitate a bylaws change which will be considered by the House of Delegates during the upcoming Annual Meeting. It is my hope the Association will continue with efforts in this direction. Presently, this Council is being chaired by Tim Walker, MD.

The Association is reaching another milestone as Dr. Mary Anne McCaffree takes the helm as the first female president of the Association. Dr. McCaffree, an Enid native and nationally recognized pediatrician neonatologist, has served our profession admirably as a practitioner of the art and science of medicine. She has participated in medical organizations and associated political activities tirelessly and with respect from colleagues at all levels. I am confident she will guide our the OSMA in a continued and positive direction over the next year. I shall pledge my full support to her, as she has given to me this past year, and anticipate each of you will do the same.

It goes without saying that I deeply appreciate the time and efforts given by the Executive Committee and the Board of Trustees for a successful year.

In closing, I again acknowledge the able and dedicated staff of the OSMA who have provided the more than required support enabling me to pursue our goals for the year. I especially want to commend Kathy Musson for her outstanding direction as the interim director of the OSMA during 1997 and 1998, which included the last four months of my tenure as president-elect and the first nine months of my tenure as president. I also wish to acknowledge the dedication and abilities of the other staff members at OSMA: particularly Barbara Matthews, administrative assistant; Shirley Burnett, comptroller; Susan Records, *Journal* managing editor; Judy Lake, OMPAC and legislative assistant; Debbie Adams, membership coordinator; administrative assistants Marilyn Fick and Toni Farrar; and receptionists Janet Carr and Sue Graves.

Again, I thank each of you for the privilege of representing you as president of your association this past year and wish each of you and the OSMA continued success.

REPORT OF THE PRESIDENT-ELECT

Opening Session, OSMA House of Delegates

By Mary Anne McCaffree, MD

My childhood home had a strong foundation. Purchased by my parents when I was very young, the three-story Spanish tiled, red brick house was built in 1906 by a banker on the outskirts of town. It was a large and flexible home, accommodating the many diverse needs of the family. That home served our family well for many years before it was finally changed to accommodate a new highway.



Your State Medical Association has a strong foundation as well. With a 92-year history of serving physicians in Oklahoma, OSMA has accommodated the many needs of a diverse membership and an ever-changing medical field. While the Evaluation and Management codes of the Medicare program currently threaten our profession, the OSMA and this president stand firm, advocating for the doctor-patient relationship.

Recently our representative, Dr. Jack Beller, attended a meeting of the AMA on "E&M" coding. These onerous codes are "on hold" indefinitely until the objections of physicians can be addressed. Your input is needed as OSMA continues to work and solve this problem that attacks the very foundation of the House of Medicine.

Like my home, the OSMA has expanded and been remodeled. The blueprints for OSMA's continued growth are detailed in the Long-Range Plan. New areas of focus within the design are in the area of Public Health: tobacco, substance abuse and geriatrics.

The 1998 State of the State of Oklahoman's Health report from the Oklahoma Board of Health shows that diseases relating to tobacco and alcohol rank the highest as causes of mortality and morbidity. The Council on Public and Mental Health will develop new initiatives to address these concerns. Substance abuse prevention for youth will concentrate on the media and its effect on teenagers. A June meeting, sponsored by the American Academy of Pediatrics, will involve several physicians from Oklahoma. Efforts to decrease youth access to tobacco will be coordinated with other interested groups such as the Tobacco-Free Kids Coalition and the American Lung Association/American Thoracic Society Oklahoma Chapter. Other groups interested in promoting healthy lifestyles will be recruited to form a partnership with the OSMA.

Another addition to your OSMA House of Medicine is a focus on geriatric health. Dr. Marie Bernard, chair of Geriatric Medicine, attended the May "end of life" meeting sponsored by the AMA. This program included a "train the trainer" component that will result in plans to disseminate the educational information throughout the OSMA.

This year, the Osteopathic Physicians were welcomed to the OSMA, constructing an even-stronger foundation for our House of Medicine. These fellow advocates for patients' rights and quality health care can strengthen our position in the fight to ensure that the practice of medicine is not compromised.

Many OSMA members are eager to join in the remodeling projects in this House of Medicine. Additions to the councils and committees are being recruited from the International Medical Graduates, the Young Physicians, Medical Student section, Resident section and the Alliance. All of these new representatives bring diverse talents and views to your OSMA.

Many members have dedicated their time and expertise, advocating for quality health care through the OSMA. Dr. Tom Tyrone of Miami chairs the OSMA's effort to address Managed Medicaid issues.

As you choose to become involved in your community over this next year, please document your generosity and forward the information to the OSMA. We want to be able to develop a report card detailing the "A+" contributions of our membership to their communities.

My childhood home withstood several negative forces: tornadoes, a grasshopper plague, the Oklahoma elements, and highway development. Through it all, my home stood strong.

Likewise, your OSMA works together to make sure that the forces against it do not dismantle this House of Medicine, but serve to strengthen it. The strength of your professional, spiritual, ethical and moral code is greater than mere concrete, bricks and mortar.

REPORT OF THE EXECUTIVE DIRECTOR

Opening Session, OSMA House of Delegates

By Brian O. Foy

These few minutes here at the podium this morning present both opportunity and challenge. In reflecting upon my few short months at the OSMA, I found myself gravitating toward the theme of this year's meeting: "medicine at the crossroads." The practice of medicine here in Oklahoma and around the country is truly at a crossroads. With challenges confronting the profession at every turn, it is important that we work closely together as a team to make sure that the OSMA chooses the right road for our members and patients. I, too, found myself at a crossroads several months ago as I pondered which road to take both personally and professionally. I certainly feel that I have chosen the correct path in accepting this new challenge in my life and am excited about the opportunity of helping to guide the OSMA through the crossroads and into the 21st Century.



Before I continue, I want to take the opportunity to personally thank all of you for the privilege of serving as your Executive Director. I would especially like to thank the members of the search committee and Board of Trustees who honored me with their trust and confidence. You can be proud of your leadership. I have had experience with several search committees over the years and have never seen one conducted in such a thorough, professional manner. Your elected leaders have a strong sense of commitment and concern about the future of the OSMA and I welcome the opportunity to work closely with such committed, caring physicians.

As you might imagine, more than a few people (not just physicians) have asked me...."why Oklahoma?" The answer is very simple....opportunity. Opportunity both professionally and personally. As many of you know, I have been in organized medicine for ten years, the past three of which I served as the Executive Director of the Westchester County Medical Society in Purchase, New York. Prior to that I spent five years as a Division Director at the Florida Medical Association and the previous two years as associate director at two county medical societies. Medical association management seems to be in the genes. My father, Don Sr., is the current EVP of the Florida Medical Association, after having previously served as EVP of both the Indiana State Medical Association and the Medical Society of the State of New York. He also worked for the AMA. My youngest brother, Don Jr., is the EVP of the Orange

County Medical Society in Orlando, Florida, and he too worked at the AMA in both membership and federation relations. I can't begin to tell you how fortunate I feel to have two close family members with whom I can routinely share new ideas, common problems and frustrations. They have been an invaluable resource to me over the years. I must say that AMA meetings have literally become family reunions and I think our family has re-defined what it means to "talk shop" around the dinner table!

Why am I telling you all of this? So you can get a sense of the commitment that I bring to this position and to the profession of serving physicians. After careful consideration of the position when it first became available, it did not take me long to realize that this job was a great opportunity. Few other medical associations can boast of the high membership rolls and financial strength which are cornerstones of the OSMA. Throw in the best physician liability insurance company in the United States, an enthusiastic, participatory membership, and a loyal, dedicated staff and you can see why my choice was easy.

As I stated before, an important part of my decision, or more correctly "our decision," to come to Oklahoma was personal. My wife, Karen, and I were completely overwhelmed by the warm reception we received from many of you during the search process. You truly rolled out the welcome mat in a spirit of kindness that I've come to learn is a part of what it means to be an Oklahoman. We were equally impressed by the friendliness of strangers - something so lacking in other parts of the country. These experiences only reinforced our feeling that Oklahoma was where we wanted to settle and put down our roots. Our kids - and I have four - are eager to move here and make new friends.

Most importantly, this position offers opportunities and challenges for which, I feel, my background and experience have prepared me well. Having worked at other state and county medical associations, and actively serving as a member of the American Association of Medical Society Executives for many years, I feel that I am in a good position to bring new ideas to the OSMA. There are, frankly, many other medical associations we can learn from; at the same time, there are many things we do here at the OSMA that other associations could greatly benefit in learning from us. We must always be open to new ideas and new opportunities to make the OSMA even stronger and more relevant to its current and future members. I know this sounds like a cliché, but as "stewards of change," all of you play an important role in helping to shape the OSMA

Report of the Executive Director *(continued)*

of the future. The OSMA must take a leadership role in preserving the practice of high quality, cost-effective, patient-friendly medical care. We must accept this challenge together. Our current and future medical students and your patients deserve no less.

My first few months at the OSMA have been fast and furious. SB 1192, which Dr. Selby mentioned earlier, was certainly my "baptism by fire" to the Oklahoma legislative process and no doubt added more than a few gray hairs to my head! Unfortunately, the OSMA was not successful in defeating this bill, which allows for an unprecedented expansion of the scope of practice of optometry. I have warned my colleagues that they can expect similar legislation in their states. We must learn from this defeat and better position ourselves for future assaults on the practice of medicine. We must be more active in the legislative process and this begins at the local level, in local elections and through OMPAC. I hope that many of you are planning to attend the seminar at 2:00 p.m. tomorrow entitled, "Communicating with your Lawmakers."

I have had the good fortune of visiting a few of the county medical societies and look forward to visiting many more. I hope to get to meet many of you personally before the meeting is over. I welcome the opportunity to discuss your ideas, suggestions and comments, be it personally,

over phone, via fax or via e-mail, whichever you prefer. I hope you will strongly consider committee and council service as a fundamental opportunity to share and discuss your ideas with fellow members.

Before I close, I can't let Dr. Selby "corner the market" on thank you's! I want to acknowledge and express my appreciation to the OSMA staff. In the relatively short period of time that we have worked together, I have been extremely impressed by their collective hard work, professionalism and commitment. In particular, I would like to thank Kathy Musson, Associate Director, who very ably assumed and executed the responsibilities of this position during the previous year. Her advice and counsel to me has been invaluable. I welcome the opportunity to lead this talented team in helping the OSMA fulfill its established goals and objectives. This is not a "9-5" group and I hope you will take a moment during this meeting to communicate your appreciation.

In closing, I look forward to working closely with many of you as we partner to make sure that the OSMA remains the preeminent organization representing all physicians in the State of Oklahoma. We are at a crossroads. As we move forward, let's work closely together to ensure that no matter what the obstacle, the OSMA is always positioned to take the right road...straight to success. Thank you.

OPENING SESSION, OSMA House of Delegates

Friday, April 24, 1998

I. Call to Order, Invocation and National Anthem

The House of Delegates convened the 92nd Annual Session of the House of Delegates at the Oklahoma City Marriott on Friday, April 24, 1998. Bruce L. Storms, MD, Speaker, House of Delegates called the meeting to order at 8:30 a.m.

Girl Scouts from the Redland Council presented the colors.

The National Anthem was sung by the Putnam City North Show Choir under the direction of Jan Hulsey.

The invocation was given by Father Tom Boyer, Rector, Cathedral of Our Lady of Perpetual Help in Oklahoma City.

II. Report of the Credentials Committee

Credentials Committee Chairman, R. J. Boatsman, MD, Lawton, announced that a quorum was present.

III. Introductions

Dr. Storms introduced those at the head table: John R., Bozalis, MD, Vice Speaker, House of Delegates; David M. Selby, MD, President; Mary Anne McCaffree, MD, President-Elect; David L. Harper, MD, Immediate Past President; Boyd O. Whitlock, MD, Vice President; W.F. Phelps, MD, Chair, Board of Trustees; Robert Phillips, MD, Vice Chair, Board of Trustees; Carol Imes, MD, Secretary-Treasurer; Nancy Dickey, MD, AMA President-Elect; Brian O. Foy, Executive Director; and Kathleen A. Musson, Associate Director.

Dr. Storms then introduced and welcomed the following special guests: OSMA Past Presidents; John Montgomery, OSMA Federal Lobbyist; Cheryl Van Cott, AMA Field Representative; Betsy Jett and Janice Hudson, Medical Student Section; Doris Clark, Jana Timberlake, and Pacia Roberts, Oklahoma County

Medical Society Staff; Paul Patton and Tanya Luce, Tulsa County Medical Society Staff; Doris Edge, OSMAA President; and Linda Rueffer, OSMAA AMA ERF Chairman.

Dr. Storms recognized the OSMA staff and thanked them for their support and hard work that went toward making the Annual Meeting a success.

Dr. Storms announced the various meetings taking place during the weekend and invited members to the OSMA Presidential Inaugural and the College of Medicine Alumni Dinner.

IV. Approval of the Minutes of the 1997 Annual Meeting

Motion was made, seconded and passed to approve the Opening and Closing Session Minutes from the 1997 OSMA Annual Meeting.

V. AMA-ERF (Presentation of Checks)

John R. Bozalis, MD, Vice Speaker, introduced Mrs. Doris Edge, President of the Oklahoma State Medical Association Alliance. Mrs. Edge thanked the OSMA for their financial support and gave a few brief remarks regarding efforts of the Alliance this year. Mrs. Edge introduced Linda Rueffer, OSMAA AMA/ERF Chair, who then presented the AMA/ERF checks to Everett Rhoades, MD, OU College of Medicine Associate Dean for Community Affairs.

VI. Presentation of Awards

Journal Awards:

Dr. Bozalis introduced Ray V. McIntyre, MD, Journal Editor in Chief, to make the presentations of the Journal Awards.

Dr. McIntyre presented the "Charlotte S. Leebron Memorial Trust Fund Award" to Eliezer Katz, MD; Charles M. Miller, MD; Bakr Nour, MD; Myron E. Schwartz, MD; Anthony Sebastian, MD; and Sukru Emre, MD; for their paper entitled "The First In Situ Split of a Liver in the

USA Performed by Two Geographically Distant Transplant Centers-Enhancing, Sharing, and Expanding the Cadaveric Liver Organ Pool." published in November /December 1997.

William S. Harrison, MD, Oklahoma City, received the award for the "Best Journal Cover Photograph Award." Dr. Harrison's photograph of a Magnolia Blossom was featured on the May/June 1997 issue of the Journal.

The Mark R. Johnson Award for Excellence in Medical Writing was awarded to Christian C. Sieck, Resident, Family Practice, Enid.

Wyeth-Ayerst Physician Award for Community Service:

Dr. Bozalis introduced W.F. Phelps, MD, Chairman, OSMA Board of Trustees to present the Wyeth Ayerst award to co-recipients Kent King, MD, Duncan, and George Prothro, MD, Tulsa.

Dr. Phelps called Kent King, MD, Duncan, to the podium and presented the award on behalf of his efforts with the Compassion Care Clinic in Marlow. Dr. Phelps then recognized George Prothro, MD, Tulsa, for all his work on behalf of the Tulsa County/City Health Department and the many works which he has been involved with in Tulsa (Dr. Prothro was unable to attend).

Don J. Blair, Friend of Medicine Award:

Dr. Bozalis introduced Edward Brandt, Jr., MD, who presented the Don J. Blair Friend of Medicine award to State Representative Betty Boyd for her outstanding work on the House Public Health Committee and all her efforts on behalf of OSMA for the many bills she has authored and co-sponsored.

AMA Delegation Award

Dr. Bozalis introduced Jay A. Gregory, MD who presented Sara R. DePersio, MD, with an award for her outstanding service to the AMA Delegation as a Delegate and Alternate Delegate.

VII. Remarks From the AMA President-Elect - Nancy Dickey, MD
Nancy Dickey, MD, AMA President-Elect thanked the officers and members of the Association and gave brief remarks concerning the AMA.

VIII. Remarks of the President

David M. Selby, MD, was called to the podium to make his outgoing address.

Dr. Selby thanked the Delegates for the confidence placed in him over the last year. Dr. Selby stressed the importance of continuing with the grass roots efforts with the State Legislatures stating that this need became evident during the association's recent efforts to defeat S.B. 1192 allowing optometrists to perform laser eye surgery.

Dr. Selby stated the association completed two major searches, one for the OSMA Executive Director and the other for the Physicians Recovery Program Director. The Executive Director position was filled by Mr. Brian O. Foy, after a national search was conducted and a Board of Trustees selection was made. The Physicians Recovery Program Director Harold Thiessen, MD was selected after a committee chaired by James Funnell, MD, made the recommendation to the Board of Trustees.

Overall, Dr. Selby stated the association had a very good year and encouraged increasing the involvement in the electronic communications area.

IX. Recess for Delegation Caucus

Dr. Storms declared a 10 minute recess for county medical society caucuses to prepare for nominations for the various association offices. Dr. Storms reminded the counties of the Trustee positions that are currently open, stating there are two Districts that currently do not have nominations. Nominations will be made from the floor and seconding speeches will not be made.

X. Nominations for Election

Bruce Storms, MD, Vice Speaker of the House, announced the floor was open for nominations for the following positions:

President Elect

Boyd O. Whitlock, MD
Tulsa County

Vice President

Jack J. Beller, MD
Cleveland, McClain County
Robert J. Weedn, MD
Stephens County

Speaker, House of Delegates

Bruce Storms, MD
Grady County

Vice Speaker, House of Delegates

John Bozalis, MD
Oklahoma County

Trustees:

District I: Craig, Delaware, Mayes, Nowata, Ottawa, Rogers & Washington Counties
Thomas Tryon, MD

District VI: Oklahoma County

J. Christopher Carey, MD
Norman K. Imes, MD
Mark C. Johnson, MD
Dennis R. Mask, MD
Michael L. Winzenread, MD
Rebecca Goen Tisdal, MD

District VII: Cleveland, Creek, Lincoln, Okfuskee, Pottawatomie & McClain Counties

Jay E. Leemaster, MD
David L. Holland, Jr., MD, Alternate Trustee

District VIII: Tulsa County

David L. Harper, MD
Michael B. Clendenin, MD
Barbara Hastings, MD
William A. Geffen, MD
C. Wallace Hooser, MD
David M. Nierenberg, MD

District X: Haskell, Hughes

Michael F. Boyer, MD
Richard B. Winters, MD, Alternate Trustee

District XI: Atoka, Bryan, Choctaw, Coal, McCurtain & Pushmataha Counties

Alternate Trustee: Nomination has not been submitted

AMA Delegation:

Delegates:

Clarence Robison, MD
Oklahoma County
Perry Lambird, MD
Oklahoma County
David L. Harper, MD
Tulsa County
W.F. Phelps, MD
Tulsa County
Jay A. Gregory, MD
East Central County

Alternate Delegates:

Jack Beller, MD
Cleveland/McClain County
Sanku Rao, MD
Garfield
Greg Ratliff, MD
Tulsa County
William Bernhardt, MD
Oklahoma County
Bruce L. Storms, MD
Grady County

PLICO Board of Directors:

John R. Alexander, MD
Ed L. Calhoon, MD
William C. McCurdy, MD
Floyd F. Miller, MD
Steven A. Mueller

XI. Remarks from the Chairman of the Board of Trustees

David M. Selby, MD, presented W. F. Phelps, MD, an award for his hard work and dedication to the Board of Trustees this year as Chairman of the Board.

Dr. Phelps updated the Delegates on actions taken at the Board of Trustee meetings throughout the year and stated that the Supplemental Report of the Board of Trustees was available in the back of the room.

Dr. Phelps introduced the new Chairman of the Board, David Russell, MD, Enid, and Vice Chairman of the Board, C. Wallace Hooser, MD, Tulsa.

XII. Remarks from the Secretary-Treasurer

Carol Imes, MD, thanked the Officers and Delegates for the privilege to serve as Secretary Treasurer and for their support and confidence. Dr. Imes stated that her task was enabled by the efficient and diligent work by Shirley Burnett, OSMA Comptroller.

Dr. Imes updated that Delegates on the information provided in the handbook and summarized the reports stating all are very positive.

Dr. Imes informed the Delegates that the OSMA ended the 1997 year with revenue over expenses and that OSMA is in the most favorable financial position in its history. The OSMA asset growth has continued and many of the expenditures were capitalized, including the computer hardware and programs designed for OSMA.

Dr. Imes informed the Delegates that the Audit was very detailed and comments from the Auditors were complimentary to the OSMA regarding our internal controls and accountability. Dr. Imes stated that OCVO reimbursed OSMA a little over \$7,000 at the January Board of Trustees meeting.

In closing, Dr. Imes stated that it is a pleasure to report that OSMA is in the best financial position at this time and expects to be able to fund planned projects.

XIII. Report of the Constitution & Bylaws

Bruce Storms, MD, updated the House on the various changes being proposed by the Bylaws Committee which will be presented in Reference Committee I. Dr. Storms also informed the Delegation of the vote being taken at the Closing Session regarding the Osteopathic membership bylaw changes. Copies of the bylaw changes being presented at the Reference Committee and at the Closing Session were in the Delegates handbook for review.

XIV. Report of the Executive Director

Mr. Brian O. Foy addressed the House and thanked them for the privilege of

serving as their Executive Director. Mr. Foy discussed his past experience as Executive Director of Westchester County Medical Society in New York and as Division Director at the Florida Medical Association. In closing, Mr. Foy stated that he looked forward to working with the leadership to make sure OSMA remains the pre-eminent organization representing all physicians in the State of Oklahoma.

XV. Presentation of Business to Come Before the House

Dr. Storms announced the times and locations of the Reference Committees and the importance of ending times due to the fact that the Hotel needed to set up for the Alumni dinner on Friday evening. Dr. Storms read the list of

sponsors who helped with the banquets and receptions, and encouraged the membership to visit the exhibitor booths.

XVI. Necrology Report

Dr. Bozalis asked the Delegates to stand as he read the names from the Necrology report. After reading the names there was a moment of silence in remembrance.

XVII. Recess

There being no further business to come before the House, a motion was made, seconded and passed to recess the Opening Session of the House of Delegates until 9:00 a.m. Sunday, April 26, 1998.

CLOSING SESSION, OSMA House of Delegates

Sunday, April 26, 1998

I. Call to Order

The Closing Session of the 92nd Annual Meeting of the House of Delegates was called to order by Bruce L. Storms, MD, Speaker, House of Delegates, at 9:00 a.m. at the Oklahoma City Marriott.

II. Invocation

Mrs. Doris Edge, outgoing OSMA Alliance President, gave the Invocation.

III. Report of the Credentials Committee

Credentials Committee Chairman, Richard J. Boatsman, MD, announced that a quorum was present.

IV. Welcoming Remarks

Robert Wilson, MD, Oklahoma County Medical Society President, welcomed the Delegates to Oklahoma City. Dr. Wilson stated he appreciated the time and effort they have taken to make the meeting a success.

V. Announcements

Dr. Storms announced that Reference Committee reports were available in the back of the room. Dr. Storms informed

the Delegates that amendments to the Reports need to be in writing and presented to staff before addressing the report or resolution at the podium. Immediately following the House of Delegates a luncheon for the new Officers, AMA Delegates /Alternates and Trustees will be held in Salons F & G. The AMA Delegation will Caucus immediately following the luncheon. Dr. Storms requested the Delegates complete the survey card in the back of the program and leave at the Registration desk.

VI. Remarks of the Incoming President - Mary Anne McCaffree, MD

Dr. Storms introduced Mary Anne McCaffree, MD to make remarks before the House.

Dr. McCaffree thanked the Delegates for the honor of being President at the 92nd Annual Meeting of the OSMA House of Delegates. Dr. McCaffree stated that there were parallels between OSMA and her childhood home in Enid. Stating that both had a strong foundation and were large and flexible in accommodating a large family with diverse interests. Dr. McCaffree stated that the OSMA foundation is

threatened by E&M codes, and she vowed to eradicate and work to change the system imposed by the Health Care Financing Authority. The growth of the OSMA is detailed in the Long Range Plan and as the OSMA changes, new areas of focus will be identified. Changes in the various Councils and Committees will be imposed this coming year with various new Committees being formed with the Public and Mental Health Council. Information taken from the State of the State Health report, will help guide the efforts of the OSMA to work in the problem areas defined by this report including an effort to decrease youth access to tobacco coordinated with coalitions including the American Lung Association of Oklahoma and the American Thoracic Society. Dr. McCaffree also stated that a focus on geriatric health will be looked at this year with Dr. Marie Bernard chairing this committee.

Dr. McCaffree thanked the Delegation for responding to the request to be placed on the various OSMA Councils and Committees and the response for the physicians who have been involved in Community work and Mission areas.

In closing Dr. McCaffree stated that the OSMA will work to make sure that this House of Medicine is not dismantled by forces against it, but is strengthened. The OSMA will continue to have a strong foundation and continue to be flexible and conquer adversity. In closing, Dr. McCaffree stated that together we can continue to build and construct our strong OSMA.

VII. Recess

Dr. Storms declared a recess for the Annual PLICO Shareholders meeting.

VIII. Annual PLICO Shareholders Meeting

The Annual Shareholders Meeting of PLICO was convened in session by Floyd Miller, MD, PLICO Chairman.

Dr. Miller welcomed Brian O. Foy, OSMA Executive Director to the PLICO Board as Vice President. Dr. Miller informed the Delegation of the PLICO report in the handbook and the

supplemental material mailed last week.

Dr. Miller briefly discussed the questions raised from the membership in regard to PLICO liability insurance.

Dr. Miller stated that PLICO now has capital surplus of \$15 million with reserves of \$102 million and total assets of \$117 million.

Dr. Miller stated that the finance committee meets every two months with the representatives from the investment firms. Dr. Miller discussed osteopathic membership and coverage stating that MD's or DO's are reviewed by the same regulations and that any adverse decisions must be approved of by the Board and they take the appeal by the physicians and hold until the Appeal Board meets within sixty days. PLICO is about the only indemnity company left because certain legislation has shut the others out. The Complaint Board has information from attorneys concerning suits that are getting ready to be addressed. Dr. Miller stated there are approximately 500 claims made each year. CME credit has now been given to the PLICO Loss Prevention Seminars.

Dr. Miller stated in closing that PLICO will have a forum at 1:30. After polling the Delegation it was determined that due to no questions the PLICO forum would be canceled.

IX. Election Results

Dr. Storms introduced Robert Mahaffey, MD, Teller Chairman House of Delegates to announce the election results.

President (one-year term)
Mary Anne McCaffree, MD

President Elect (one-year term)
Boyd O. Whitlock, MD

Vice President (one-year term)
Robert J. Weedn, MD

Speaker, House of Delegates
(two-year term)
Bruce Storms, MD

Vice Speaker, House of Delegates
(two-year term)
John Bozalis, MD

OSMA Trustee and Alternate Trustee Positions

Trustee District I: Craig, Delaware, Mayes, Nowata, Ottawa, Rogers & Washington Counties
Thomas Tryon, MD
(Filling unexpired terms of Douglas Cox, MD and Reed Harned, MD)

Trustee District VI: Oklahoma County
J. Christopher Carey, MD
Mark C. Johnson, MD
Michael L. Winzenread, MD
Alternate Trustee VI: Oklahoma County
Norman K. Imes, MD
Dennis R. Mask, MD
Rebecca Goen Tisdal, MD
(three-year term)

Trustee District VII: Cleveland, Creek, Lincoln, Okfuskee, Pottawatomie & McClain Counties
Jay E. Leemaster, MD
Alternate Trustee District VII:
David L. Holland, Jr., MD
(three-year term)

Trustee District VIII: Tulsa County
David L. Harper, MD
Barbara Hastings, MD
C. Wallace Hooser, MD
Alternate Trustee District VIII:
Michael B. Clendenin, MD
William A. Geffen, MD
David M. Nierenberg, MD
(three-year term)

Trustee District X: Haskell, Hughes
Michael F. Boyer, MD
Alternate Trustee District X:
Richard B. Winters, MD

Trustee District XI: Atoka, Bryan, Choctaw, Coal, McCurtain & Pushmataha Counties
No Nominations submitted

AMA Delegation:

Delegates:
Jay A. Gregory, MD
David L. Harper, MD
Perry Lambird, MD

W.F. Phelps, MD

Alternate Delegates:

Jack J. Beller, MD

William Bernhardt, MD

Greg Ratliff, MD

Bruce L. Storms, MD

(4 positions, two-year term)

PLICO Board of Directors:

John R. Alexander, MD

Ed L. Calhoon, MD

William C. McCurdy, MD

Floyd F. Miller, MD

Steven A. Mueller

(5 Positions)

X. Point of Personal Privilege

Dr. Storms introduced David M. Selby, MD, who informed the Delegation of the announcement to be made by Jay Gregory, MD, at the 1998 June AMA Meeting of his candidacy for the Board of Trustees to the AMA. Dr. Selby stated the support of the Association will be totally behind him and any communications with colleagues around the country would be appreciated on his behalf.

Dr. Gregory stated he appreciated the support from the Delegation and pledged his continued support on their behalf.

XI. Osteopathic Membership - Bylaw Amendment Vote

Dr. Storms informed the Delegation of the Osteopathic Bylaw amendment and stated that this was the final vote. Dr. Storms asked if there were any questions about the changes and informed the Delegation that this was not debatable on the floor. Dr. Storms offered the Delegates two options on voting: (1) a standing vote to be counted by the Tellers, or (2) a written vote. A request was made from the floor that a written ballot to be used for voting.

A written ballot was distributed and collected by the Tellers. Robert Mahaffey, MD, Chairman, House of Delegates, Tellers announced the Osteopathic membership passed by a vote of 107 to 18 in favor of the Osteopathic Bylaw changes.

XII. Reference Committee

Dr. Storms informed the Delegation of the procedures for the Reference Committee Reports.

The Reference Committee Reports are divided into items for discussion and a consent calendar which will state, adopted, filed for information or not adopted. All amendments will need to be made in writing and given to the staff for data input.

Report of Reference Committee I

Presented by

David Russell, MD, Enid

(1) Report of the Constitution & Bylaws

Recommendation:

Mr. Speaker your Reference Committee recommends the Report of the Constitution & Bylaws Committee be accepted with the following amendments:

Trustee District Reapportionment/ Trustee Representation

The Committee recommends the Trustee Reapportionment and Trustee Representation proposals presented in the Constitution & Bylaws Committee Report be referred to the OSMA Board of Trustees for further study and **report back to the House of Delegates in 1999** in light of the potential increase in membership as a result of the passage of the bylaw changes allowing Osteopathic Membership.

Amendment of Bylaws procedures

The Committee recommends the following wording changes in ways to amend the bylaws:

These bylaws may be amended in two ways:

Amendments to the bylaws, after being presented to the Bylaws Committee and if passed by the Board of Trustees on or before the Board's January meeting, will be presented to the House of Delegates, and if passed by a two thirds vote of the Delegates present and voting, will become effective at the close of the Annual Meeting at which it was passed. The proposed bylaw changes must be sent to the Delegates at least 45 days prior to the

Annual Meeting. Only grammatical changes can be made to the proposed amendment without the amendment being referred back to the Bylaws Committee for review and subsequent referral to the OSMA House of Delegates for consideration.

2. Proposed bylaw changes not presented at or before the January Board of Trustees meeting may be presented in writing at one Annual Meeting and may be adopted only at a subsequent Annual Meeting by a two thirds vote of the Delegates present and voting.

No amendment shall become effective until close of the Annual Meeting at which time it is adopted.

(2) Membership Report

Recommendation:

Mr. Speaker your Reference Committee recommends the Membership Report be accepted with the following amendment:

On page 2, after line 4 adding Joseph James, MD, Muskogee to the list of names approved for Life Membership. This will coincide with the Board of Trustees Report submitted to the House of Delegates for approval.

(3) Resolution 27

Loss of License

Recommendation:

This item was referred to the Board of Trustees for further study and to review the usage of the wording *who uses his or her medical license to perpetrate a felony*. This wording will need to be defined before legislation can be written.

(4) Resolution 29

Medical Student Section (MSS) Delegate Representation

Recommendation:

Mr. Speaker, your Reference Committee recommends Resolution 29 be adopted with the following amendments to read:

RESOLVED, that a representative from the OSMA Medical Student Section be added as a member to the OSMA Board of Trustees; and be it

RESOLVED, that the OSMA Bylaws be changed to add the addition of a Medical Student Section Trustee to the OSMA Board of Trustees; and be it further

RESOLVED, that the OSMA bylaws be amended to state that the OSMA Medical Student Section shall be entitled to one Delegate and one Alternate Delegate for each MSS chapter represented on each Medical and Osteopathic medical school campus in the state of Oklahoma.

Mr. Speaker, your Reference Committee recommends to adopt the following reports on the Consent Calendar:

Consent Calendar

Recommendation for Adoption:

(5) Report of the Appropriations & Audit Committee

(6) Report of the Board of Trustees

(7) Supplemental Report of the Board of Trustees

(8) Report of the Council on Rural Health

(9) Report of the Physicians Liability Insurance Company (PLICO)

(10) Report of the Secretary Treasurer

Mr. Speaker, your Reference Committee recommends the following reports be filed for information:

Filed for Information

(11) Report of the Council On Planning & Development

(12) Report of the OSMA Alliancer

(13) Report of the OSMA President

(14) Report of the AMA Delegation

Mr. Speaker, your Reference Committee recommends the following Resolutions Not Be Adopted:

Recommend Not Be Adopted

**(15) Resolution 5
AMA Delegation Expenses**

**(16) Resolution 6
AMA Delegation Qualifications**

**(16) Resolution 7
OSMA Trustee Representation**

**(17) Resolution 8
OSMA Delegation Representation**

**(18) Resolution 9
AMA Delegate/Alternate Elections**

**(19) Resolution 18
AMA Delegate Term Limits**

The Report of Reference Committee I was approved by the House of Delegates as a whole, as amended.

Report of Reference Committee II
Presented by Robert Wilson, MD,
Oklahoma City

(1) Report of the Council on Professional and Public Relations

Recommendation:

Mr. Speaker, your Reference Committee recommends the Report of the Council on Professional and Public Relations be accepted with the following amendment:

Add an additional Recommendation:
OSMA shall make intense commitment to information technology.

(2) Report of Organized Medical Staff

Recommendation:

Mr. Speaker, your Reference Committee recommends the Report of the Organized Medical Staff Section be accepted with the following amendment:

Recommendation regarding in-house legal counsel be referred to the Board of Trustees for further consideration.

(3) Resolution 2—School and Day Care Immunization Law Changes

Recommendation:

Mr. Speaker, your Reference Committee recommends Resolution 2 be adopted with the following amendments to read:

RESOLVED, That OSMA endorses requiring two doses of Hepatitis A vaccine for children entering kindergarten in the fall of 1998. Each year thereafter, the requirement shall be extended one grade level, so that in the school year, beginning in 2004, all children entering school shall be required to have the vaccine or a doctor's statement of a history of the disease; and be it

*A Friendly amendment was made from the floor of the House of Delegates to have staff check to be sure the correct dates are recorded. Dr. Edd Rhoades verified and made editorial changes to correct the dates. The Speaker of the House of Delegates, Bruce L. Storms, MD has verified and adopted these changes.

(4) Resolution 11—OSMA Assume Full Operation of OCVO

Recommendation:

Mr. Speaker, your Reference Committee recommends Resolution 11 be adopted with the following amendments to read:

RESOLVED, that the OSMA House of Delegates accept the recommendation of the Board of Trustees to form an Ad Hoc Committee to investigate assumption of OCVO ownership from Tulsa County Medical Society and report back to the OSMA Board of Trustees at the next scheduled meeting for a final decision to accept or reject.

(5) Resolution 15—State and Federal Tax Codes Change

Recommendation:

Mr. Speaker, your Reference Committee recommends Resolution 15 be adopted with the following amendments to read:

RESOLVED, That the Oklahoma State Medical Association work with the State Legislature to change the current State Tax Code to allow all individuals to deduct the cost of all health insurance premiums from gross income before arriving at their adjusted gross income.

RESOLVED, That the American Medical Association work with the Federal Government to change the current Federal Tax Code to allow all individuals to deduct the cost of all health insurance premiums from gross income before arriving at their adjusted gross income.

(6) Resolution 25—Access to Sterile Needles and Syringes

Recommendation:

Mr. Speaker, your Reference Committee recommends Resolution 25 be adopted with the following amendments to read:

RESOLVED, that the Oklahoma State Medical Association urges the Oklahoma health care professionals who educate the many publics about HIV prevention to seriously promote access to sterile needles and syringes as an effective public health measure that reduces HIV infections and their associated health and social costs, and be it;

RESOLVED, that the OSMA urges the Oklahoma Legislature to repeal legislation preventing access to sterile needles and syringes.

(7) Resolution 28—Definition of “medically necessary”

Recommendation:

Mr. Speaker, your Reference Committee recommends Resolution 28 be adopted with the following amendments to read:

RESOLVED, That screening, which is a term referring solely to examinations of asymptomatic, apparently healthy individuals with no signs or symptoms of disease, typically undertaken to provide the individual

examined with reassurance of his/her good health, shall not be considered the examination of a symptomatic individual with signs or symptoms of disease for whom a process of diagnosis or treatment is being undertaken by his/her physician

Mr. Speaker, your Reference Committee recommends to adopt the following Reports and Resolutions on the Consent Calendar:

Consent Calendar

Recommendation for Adoption:

(8) Report of the Young Physicians Section

(9) Resolution 10—Rescinding Statement of Intent with AMAP

(10) Resolution 16—Forum for Implementation of Adopted Resolutions

(11) Resolution 17—Fixed Reimbursement to Physicians

(12) Resolution 19—AMA Public Relations Campaign

(13) Resolution 26—Universal Newborn Hearing Screening

Mr. Speaker, your Reference Committee recommends the following reports be filed for information:

Filed for Information

(14) Report of the Council on Public and Mental Health

(15) Report of Medical Student Section

(16) Report of the Oklahoma Centralized Verification Organization

Mr. Speaker, your Reference Committee recommends the following Resolutions Not Be Adopted.

Recommended Not Be Adopted

(17) Resolution 13—Questioning of Medical School Applicants

The Report of Reference Committee II was approved by the House of Delegates as a whole, as amended.

Report of Reference Committee III
Presented by William Geffen, MD, Tulsa

Reference Committee III gave careful consideration to the several items referred to it and submits the following report:

(1) Resolution 21—\$25 Assessment Fee for Public Information Program
Recommendation:

Mr. Speaker, your Reference Committee recommends to substitute Resolution 21 with the following amendments:

Resolution 21 be substituted with the following name change and change in Resolves

Public Awareness Campaign

The Resolves be stricken and substituted with the following:

RESOLVED, that the OSMA undertake a public information campaign in order to increase public awareness of the threats to health care in Oklahoma, in particular issues related to the Sooner Care Program that are causing very serious problems with quality and access to care and which threaten to erode quality and access to care for more and more Oklahomans as this program continues, to be financed as deemed necessary by the OSMA Board of Trustees.

(2) Resolution 22

Physicians in Congress
Recommendation:

Mr. Speaker, your Reference Committee recommends that Resolution 22 be adopted with the following substitution to the final Resolve:

RESOLVED, that the Oklahoma State Medical Association delegation to the AMA further recommends that the American Medical Association go on record as stating that the practice of medicine by a sitting member of Congress does not by definition constitute a conflict of interest between said physician and his or her patients or any third party payers.

(3) Resolution 24—Discriminatory Practice Concerning Patient Verification

Recommendation:

Mr. Speaker, your Reference Committee recommends that Resolution 24 be adopted with the following amendments.

RESOLVED, that the Oklahoma State Medical Association seek appropriate explanation and redress for the discriminatory practice and use of verification of current DHS patient status.

(4) Resolution 33—E&M Guidelines

Recommendation:

Late Resolution 33 - amended on House floor to incorporate all the whereas into the final resolve

RESOLVED, that the Oklahoma State Medical Association unanimously support the following statements:

•*The proposed AMA/HCFA Evaluation and Management guidelines are intrusive into a physician's practice of medicine and detract from his/her ability to provide quality care to the patient.*

•*These guidelines do nothing to improve the quality of care for the patient.*

•*Implementation of these proposals are burdensome to the physician by decreasing patient encounter time; therefore decreasing the patient doctor rapport. Because of the onerous nature of these mandated requirements, physicians must decrease*

their patient load, thereby limiting access to health care.

•*The medical record is a confidential physician tool used to chronicle the medical history and physical and mental status of a patient and was not designed nor was it ever intended to be used to determine physician reimbursement.*

RESOLVED, that the Oklahoma State Medical Association instruct the American Medical Association to resolve this issue in favor of the physicians and patients of America up to and including the position of absolute non-compliance with said guidelines.

(5) Resolution 14—Partial Birth Abortion

Recommendation:

This item was referred to the Board of Trustees for further study.

(6) Report of the Council on Medical Services

Recommendation:

Resolution 24 (A97) pulled from the report and referred back to the Council for further study.

Mr. Speaker, your Reference Committee recommends to adopt the following reports and resolutions on the Consent Calendar:

Consent Calendar

Recommendation for Adoption:

(7) Report of the Council on Governmental

(8) Report of the Council on Member Services

(9) Report of the Oklahoma Medical Political Action Committee

(10) Resolution 3—Collective Bargaining for Healthcare Professionals

(11) Resolution 4

Next of Kin Granting Permission for Do Not Resuscitate Order

(12) Resolution 12

Supporting Legislation That Would Require a Standard Form by HMO's and Insurance Companies from Physicians

(13) Resolution 20—AMA Task Force

(14) Resolution 23—Legislation to Abolish ERISA Protection for Managed Care Plans

(15) Late Resolution 30—JCHAO Sentinel Event Policy

(16) Late Resolution 31—Medicaid Physician Reimbursement

Mr. Speaker, your Reference Committee recommends the following reports be filed for information:

Filed for Information

(16) Report of the Council on State Legislation and Regulation

(17) Report of the Council on Medical Education

(18) Report of the Committees on Medical Ethics and Competency

(19) Report of the Physician Recovery Committee

(20) Report of the Physician

(21) Report of the Commission on International Medical Graduates

(22) Report of the Oklahoma Foundation for Medical Quality (OFMQ)

Mr. Speaker, your Reference Committee recommends the following Resolutions Not Be Adopted:

Recommended Not Be Adopted

(23) Resolution 1—"No Confidence" in Reviews by Oklahoma Foundation for Medical Quality, Inc.

24) Resolution 32—Evaluation & Management Codes

The Report of Reference Committee III was approved by the House of Delegates as a whole, as amended.

XIII. Other Business

Recommendations were made to have the Reference Committee Meetings staggered so as to diminish prolonged

discussion on the House floor. Recommendations were also made to have the issues that tend to be controversial be placed first on the Reference Committee Report Agendas.

Dr. Storms thanked everyone who worked to make the 92nd Annual meeting of the House of Delegates a success.

Dr. Storms drew names for the Delegate attending the exhibitor booths and announced the winners:

Sara DePersio, MD	first prize
W.F. Phelps, MD	second prize
Bruce L. Storms, MD	third prize

XIV. Adjournment

There being no further business, a motion was made, seconded and passed to adjourn the Closing Session of the House of Delegates at 1:30 p.m.

REFERENCE COMMITTEE I

■ REPORT OF THE APPROPRIATIONS AND AUDIT COMMITTEE

Reference Committee I (A-98)

Subject: Annual Report

Presented by: Roland A. Walters, MD,
Chairman

Referred to: Reference Committee I

Introduction

As one of the standing committees of the Oklahoma State Medical Association, the Appropriations and Audit Committee is responsible for the annual audit of accounts of the Association.

Review of Activities:

During each of its meetings, the OSMA The Appropriations and Audit Committee met January 6, 1998, to review and make recommendations to the OSMA Board of Trustees regarding the proposed 1998 OSMA annual budget.

Recommendations:

- Approval of the proposed 1998 OSMA Annual budget as written with recommendation to request future billings from Short Wiggins and Adler law firm be presented in a more timely manner such as quarterly or semi-annually.
- Approval of the council and committee budget requests with the stipulation that any travel must be pre-approved by the OSMA Executive Committee.

Two (2) changes be made to the Finance, Personnel and Compensation Committee policy guidelines as follows: actual expenses where noted will read reasonable actual expenses and under B-2 add (d) all travel should meet the goals and objectives of the OSMA.

The Appropriations and Audit Committee met March 11, 1998 to teleconference with representatives of Ernst & Young LLP from Dallas, TX to review and approve the 1997 OSMA annual audit report.

The Committee instructed the OSMA Comptroller to write off \$25,900 an uncollectible accounts receivable form

old loans made through the physician recovery program.

A Report to the OSMA Board of Trustees was prepared by Ernst & Young LLP in addition to the annual audit report. The additional report contains a letter to the Members of the Board, a summary of audit scope and communications required by professional standards.

The Appropriations and Audit Committee accepted both reports as presented by Ernst & Young LLP. Copies to the reports are in the financial section for your review, following the Report of the Secretary-Treasurer.

Respectfully submitted,
Roland Walters, MD, Chairman
David Russell, MD
C. Wallace Hooser, MD
Carol B. Ines, MD
David M. Selby, MD

■ REPORT OF THE BOARD OF TRUSTEES

Reference Committee I (A-98)

Subject: Annual Report

Presented by: W.F. Phelps, MD, Chair

Referred to: Reference Committee I

Introduction

The OSMA Board of Trustees has completed three of its regular quarterly meetings for the organizational year 1997-98. The fourth quarterly meeting or Annual meeting of the Board is being held in conjunction with the 1998 Annual Meeting of the OSMA. The proceedings of the Annual Board meeting will be contained in a Supplemental Report of the Board of Trustees to the House of Delegates.

During the past year the Board met in regular sessions on July 13, 1997, in Enid; October 19, 1997, in Oklahoma City; and January 18, 1998, in Tulsa. A quorum was certified for each meeting.

The Board will continue to hold meetings at alternate locations when feasible, to accommodate the Board members as well as to encourage attendance by OSMA members from around the state.

Council, Committee and Special Reports

During each of its meetings, the OSMA Board of Trustees received reports from the Association's various Councils, Committees, and Special Sections. The Board also heard reports from PLICO, OFMQ, and the OSMA Alliance. As each of these entities also report directly to the House of Delegates, they will not be reported here except for special action taken by the Board and reported below.

Report of Board Actions:

The following is a listing of actions taken by the Board of Trustees in response to recommendations and information brought before it.

At its July 13, 1997, meeting, the Board:

- Approved the Report of the Secretary-Treasurer and the OSMA Financial Report through May 31, 1997, as presented.



Jack and Ruth Beller receive an award for their dancing talents shown at the Route 66 party.



Boyd and Myrna Whitlock join Douglas and Maggie Hubner for a party picture.

- Approved a proposed credentialing form as presented by the OCVO.
- Approved a recommendation that OCVO information be included on the OSMA Web Site under the Membership Benefits Section area, as an endorsed OSMA member service.
- Approved a recommendation from the OCVO Advisory Board that the OSMA sign a non-binding "Letter of Intent" to contract with the American Medical Accreditation Program (AMAP) to provide future credentialing services in the State of Oklahoma.
- Approved a motion not to financially support the activities of the Geographic Coalition, an organization aimed at reducing the geographic diversity of Medicare payments.
- Approved the Life Membership applications for the following:
Charles R. Gibson, MD, Chickasha
Glenn D. Hallum, MD, Oklahoma City
John W. Marks, MD, Blackwell
- Approved Special Membership applications for the following:
Jerry R. Troy, MD, Oklahoma City
Kumudini M. Vaidya, MD, Chickasha
- Approved a recommendation that the Chair of the Board and/or the President contact the Oklahoma State Board of Medical Licensure (OSBML) concerning the application of the new CME requirements as they pertain to retired physicians, as well as physicians who are impaired, handicapped or on sabbatical.
(Note: Dr. Phelps reported back to the Board at its October meeting that he had contacted the OSBML and discovered that

the Board's inclusion of retired physicians in the new CME requirements was intentional.)

At its October 19, 1997 meeting, the Board:

- Approved the Report of the Physicians Recovery Director Search Committee and its recommendations that Harold Thiesen, MD, be named the Director of the Physicians Recovery Program.
- Approved a recommendation to expand the scope of the Ad Hoc Committee on Managed Medicaid to include monitoring the activities of the State Children's Health Insurance Plan (SCHIP); and that the Board support the Committee's efforts to have the Legislature place SCHIP money into a "benchmark program" separate from Managed Medicaid.
- Approved the OSMA Legislative Goals for 1998 as submitted by Edward N. Brandt, Jr., MD, Chair, Council on State Legislation and Regulation.
- Approved the Report of the Secretary-Treasurer, the Financial Report through September 30, 1997, and the proposed budget for 1998, which was referred to the Appropriations & Audit Committee as well as the Finance, Personnel & Compensation Committee for further review and report back to the Board at its January 1998 meeting.
- Approved a motion to commend the efforts of William Bernhardt, MD, Chair, Council on Member Services, the Anderson Law Firm, and the Harrison Peck Consulting Firm for their respective efforts in coordinating the OSMA transition from a Defined Benefit to a Defined Contribution Pension Plan for OSMA staff.
- Approved a recommendation of the Council on Member Services to endorse the MBNA Affinity Credit Card Program as an OSMA member service.
- Agreed to sign an AMA developed "Statement of Collaborative Intent" to work closely with the members of the Federation of Medicine (AMA, state/county/specialty medical societies).
- Approved a motion to accept the budget proposal submitted by the AMA Delegation for the AMA Interim Meeting in December, 1997; and that future AMA Delegation budgets be consistent with the OSMA Bylaws and current fiscal policy.

- Approved Life Membership applications for the following:
H. Thomas Avey, MD, Oklahoma City
William Claude Click, MD, Shawnee
Thomas C. Finn, Jr., MD, Oklahoma City
Charles L. Freede, MD, Oklahoma City
Allen E. Greer, MD, Oklahoma City
Elwood Herndon, MD, Oklahoma City
William T. Holland, MD, Tulsa
Mary Duffy Honick, MD, Oklahoma City
Frank H. Howard, MD, Shawnee
Howard B. Keith, MD, Woodward
- Approved Partial Dues Exemption applications for the following:
Ernest W. Allen, MD, Oklahoma City
Mary A. Frow, MD, Oklahoma City
Lionel H. Fuller, MD, Choctaw
George W. Ingels, MD, Norman
J. Donald Mayfield, MD, Tulsa
Thomas O. Nicklas, MD, Wyandotte
Douglas Polk, MD, Oklahoma City
Malcolm G. Robinson, MD, Oklahoma City
Bill R. Sevier, MD, Tulsa
Makarand M. Vaidya, MD, Chickasha
- Approved Affiliate Membership applications for the following:
Paul W. Hathaway, MD, Tulsa

At its January 18, 1998 meeting, the Board:

- Approved a recommendation from the Executive Committee to authorize the PLICO law firm of Best Sharp Holden & Best to file on behalf of the OSMA an amicus brief regarding a matter referred to as the "PLICO Conspiracy Theory." (PLICO will pay for all attorney fees associated with this brief.)
- Approved, as amended by the Executive Committee, the expenditure policy and guidelines proposed by the Finance, Personnel & Compensation Committee, which incorporated changes made by the Appropriations and Audit Committee.
- Approved the Report of the Secretary-Treasurer, the Financial Report for the 1997 year, and the 1998 Budget, which will be presented to the House of Delegates for approval at the 1998 OSMA Annual Meeting.
- Approved a motion made by the Secretary-Treasurer to have the President appoint an Ad Hoc Committee to review

Board of Trustees (cont.)

OSMA's legal expenses and billing procedures.

- Approved the nomination of Representative Betty Boyd (Tulsa) for the Don J. Blair, Friend of Medicine Award. Approved a motion that the Wyeth Ayerst Award be given to both nominees: Kent King, MD, (Duncan) and George Prothro, MD, (Tulsa).

- Approved the Report of the Appropriations and Audit Committee, which included recommendations concerning the OSMA 1998 budget and a review of the Expenditure Guidelines developed by the Finance, Personnel & Compensation Committee.

- Approved the Report of the Ad Hoc Committee on Re-apportionment, as presented by David Russell, MD, and referred the report to the Constitution & Bylaws Committee for action. In addition, the Board approved a motion that the Bylaws Committee study the number of physicians currently represented by each Trustee.

- Approved a recommendation that the OSMA contract with a public relations firm ("Public Strategies") for a four-month period to provide OSMA with assistance in public relations activities, specifically related to the Legislative Session. This contract will be reevaluated by the Board in consideration of whether or not the OSMA should hire a P.R. firm full-time.

- Approved payment of monies (\$7,000) in excess of funds budgeted for the Executive Director Search process.

- Approved a motion to have the President appoint a subcommittee under the Council on Professional and Public Relations to study the OSMA's computer-related expenses to date and develop a plan for the purchase of future computer resources.

- Approved Life Membership applications for the following:

Reagan H. Bradford, MD, Edmond

Melvyn L. Brill, MD, Tulsa

Richard A. Ellis, MD, Duncan

Edward H. Fite, Jr., MD, Muskogee

John H. Gardner, MD, Edmond

Arthur E. Hale, Jr., MD, Tulsa

William L. Hughes, MD,

Oklahoma City

Joseph James, MD, Muskogee

Betty J. McClellan, MD, Oklahoma City

James W. McDoniel, MD, Chickasha

J.E. Pyeatte, MD, Tulsa

Georgene M. Schmeckpeper, MD,

Oklahoma City

George R. Smith, Jr., MD, Cushing

Jack M. Stephenson, MD, Sulphur

Harold L. Stratton, Sr., MD, Tulsa

Cranfill K. Wisdom, MD, Shawnee

- Approved Partial Dues Exemption applications for the following:

Paul A. Barrett, MD, Oklahoma City

George N. Barry, Jr., MD, Norman

Ronald C. Boden, MD, Tulsa

Richmond J. Brownson, MD, Tulsa

Robert W. Daniels, MD, Midwest City

David V. Eakin, MD, Afton

W. Richard Harrison, MD,

Oklahoma City

William D. Hawley, MD, Oklahoma City

Fred L. Loper, MD, MD, Oklahoma City

John E. Poarch, MD, Edmond

Dorothy A. Thadani, MD,

Oklahoma City

Lanny F. Trotter, MD, Stillwater

William J. Williams, MD, Bethany,

- Approved Affiliate Membership for the following:

Kenneth A. Muckala, MD, Tulsa

- Approved a motion generated by the Appropriations and Audit Committee that the OSMA no longer expend funds toward the purchase of alcohol, to include complimentary drink tickets.

Respectfully submitted,

W. F. Phelps, MD, Chair,

Board of Trustees

■ OSMA SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES

Reference Committee I (A-98)

Subject: Annual Report

Presented by: W.F. Phelps, MD, Chair

Referred to: Reference Committee I

The Board of Trustees met at its Annual Meeting yesterday, April 23, 1998, at 1:30 p.m. at the Oklahoma State Medical Association Headquarters. This Supplemental Report reviews actions taken by the Board during the meeting. The report will be referred to Reference Committee I for consideration, along with the Annual Report of the Board of Trustees, which is in the Delegates' handbook.

Below is a listing of the actions taken at the Board Meeting.

Motion was made seconded and passed to have the Executive Committee, chaired by David M. Selby, MD, to explore the possibility of finding in house legal council or an independent Law firm to represent the legal needs of the OSMA. This committee will report to the Board of Trustees at the July Board Meeting.

Motion was made seconded and passed to have Thomas Tryon, MD, Miami, fill the unexpired term of Douglas Cox, MD, and Reed Harned, MD as the Trustee for District I for the April 23, 1998 meeting. Dr. Thomas Tryon will stand for election and will be voted in by the House of Delegates on Sunday, April 26, 1998.

Board of Trustees approved the following Late Resolutions Late Resolution 30 JCHAO Sentinel Event Policy Late Resolution 31 Medicaid Physician Reimbursement Late Resolution 32 Evaluation & Management Codes Late Resolution 33 E&M Guidelines

- Motion was made seconded and passed to have letters regarding the Optometry lawsuit published in the OSMA Journal, Oklahoma County Bulletin and the Tulsa newsletter from David Parke, MD, David Selby, MD, and Governor Frank Keating.

- Motion was made seconded and passed to approve the Professional & Public Relations Council report which

includes several recommendations. The Council was charged with developing an overview of the computer needs of OSMA in regards to Information Systems. Motion was made seconded and passed to approve the Report of the Constitution & Bylaws Committee with the addition of the following items. Page 13 line 7 change elected to selected and Page 28 line 23 changing Boards to Board's.

- Motion was made seconded and passed to strongly support the formation of an OSMA Ad Hoc Committee to look at OSMA assuming full operational responsibilities of the Oklahoma Centralized Verification Organization (OCVO) and what the responsibilities of the OSMA would be. This Committee will report back to the Board of Trustees at the July Board Meeting. The Committee will be comprised of the following members. Ray Cornelison, MD, Chairman

David Russell, MD
 Jack J. Belter, MD
 Norman Innes, MD
 Bruce Storms, MD
 C. Wallace Hooser, MD
 William Geffen, MD
 Brian O. Foy, OSMA
 Executive Director
 Paul Patton, Tulsa County
 Executive Director

- Below is a listing of the Reports approved by the Board of Trustees

Report of the Rural Health Council
 Report of the Long Range Planning
 & Development Council

Report of the Appropriations &
 Audit Committee

- Below is a listing of the reports filed for information by the Board of Trustees: Council on Medical Services Council on Member Services Council on Public & Mental Health Physicians Recovery Program Oklahoma Foundation for Medical Quality Organized Medical Staff Section Young Physicians Section Oklahoma Medical Political Action Committee - Extensive conversation centered around the need for physicians to support OMPAC.



Exhibit Hall provided exhibitors and members the opportunity to meet.

Brian O. Foy, Executive Director, requested the Board make recommendations on the following items:

- Approve the contract between OSMA and the Public Relations firm of Public Strategies for a period of one year.
- Approve the recommendation to support the "Clear the Air Day at the Capital" which is being sponsored by Tobacco Free Oklahoma Coalition of which OSMA is a member.

The Board approved both recommendations.

- Motion was made seconded and passed to approve the Life Memberships of the following physicians
 Roger R. Paul, MD, Tulsa
 William R. Smith, MD, Enid
 Lydia B. Kronfeld, MD, Tulsa
 Victor R. Neal, MD, Tulsa
 Jerry L. Puts, MD, Tulsa
 Roger E. Wehrs, MD, Tulsa

The Board of Trustees heard comments from the following individuals:

- Doris Edge, OSMA Alliance President who introduced Diane Cooke, incoming Alliance President.
- John Montgomery, OSMA Federal Lobbyist, updated the Board on the Legislative issues in Washington.

- Edward Brandt, MD, updated the Board on the current Legislative issues.

In closing the Board elected David Russell, MD, Enid, as the Chairman of the OSMA Board of Trustees, and C. Wallace Hooser, MD, Tulsa as Vice Chairman of the OSMA Board of Trustees.

The Board of Trustees adjourned at 5:25 p.m.

REPORT OF THE COUNCIL ON PLANNING & DEVELOPMENT

Reference Committee I (A-98)
Subject: Annual Report
Presented by David L. Harper, MD
Referred to: Reference Committee I

The Council on Planning and Development met once during the 1997-98 Association Year. On February 22, 1998, at the Oklahoma State Medical Association (OSMA) Headquarters, the Council met to review the goals and objectives established during the previous year and discuss the status of their implementation.

The Council is comprised of the following OSMA members: President; President-Elect; Vice President; Secretary-Treasurer; Speaker; Vice Speaker; Chair of the Board; Vice Chair of the Board; all Council Chairs; AMA Delegates/Alternate Delegates; and the OSMA Alliance President.

The following Council members were present at this meeting: David L. Harper, MD, Immediate Past President, Chair; Edward N. Brandt, Jr., MD, Chair, Council on State Legislation and Regulation; Jack J. Beller, MD, Chair, Council on



Sherry Strebel, OMPAC Secretary/Treasurer, discusses an item with Jeffrey T. Shaver, OMPAC Chair.

Medical Services; William G. Bernhardt, MD, Chair, Council on Member Services; Norman L. Dunitz, MD, AMA Delegate; Doris Edge, President, OSMA Alliance; Carol B. Imes, MD, Secretary-Treasurer; K. Mehta, MD, Chair, IMG Commission; Mary Anne McCaffree, MD, President-Elect; and W. Frank

Phelps, MD, Chair, Board of Trustees. Staff: Brian O. Foy, Executive Director; Kathy Musson, Associate Director.

A copy of the original goals/objectives along with the approved OSMA Mission Statement are provided for reference as Attachment I.

Review of Goals/Objectives

I. Goal I: Assume a more active and visible role in promoting and improving health education.

Actions Taken:

- At its January 18, 1998 meeting, the Board of Trustees approved a recommendation that the OSMA hire a public relations firm to help the organization with its communications and public relations activities. The firm, "Public Strategies", based in Oklahoma City, was hired initially for a four-month period beginning February 1, 1998, primarily to assist the OSMA in its legislative efforts. The firm has also provided the following services: press releases to the media regarding OSMA actions/initiatives; preparation of feature articles for publication; media relations; re-design of OMPAC direct-mailing pieces; and planning for OSMA Annual Meeting activities. Should the Board approve a recommendation to retain the P.R. firm beyond the four-month period, the firm will be invaluable in working with OSMA to satisfy many of the specific objectives outlined under Goal I.

- Regarding Objective I.8: OSMA will obtain and periodically publish in OSMA News and the Journal, opportunities for physicians to serve on State Regulatory Boards, Commissions and Councils. Interested physicians can then be nominated through the OSMA.

II. Goal II: Increase physician membership and participation in OSMA

Actions Taken:

- The OSMA Delegation to the AMA, chaired by Jay A. Gregory, MD, has been meeting with county medical societies to improve communication of OSMA / AMA activities to the grassroots as well as solicit ideas for resolutions to the OSMA and AMA.

- The OSMA has established a "blast fax" network to allow for rapid dissemination of timely information to members. Any member with a fax machine that has auto-receive capability can be a part of this network. The cost to the OSMA is minimal: approximately 10¢ per page. This communication system will currently allow OSMA to reach nearly 3000 members in a matter of minutes and can be segregated as necessary to reach targeted audiences.

- The Council supports the idea of establishing a Committee on Membership Development to focus on membership recruitment and retention issues, dues, and concerns expressed by non members. This recommendation has been referred to the President-Elect.

- The OSMA will be expanding the mailing list for the "Week in Review" newsletter, which is currently mailed to the following OSMA leadership: Officers; Delegates/Alternates; Trustees/Alternates; Council and Committee Chairs; and County Medical Society Presidents and Executive Directors. The expanded list will include all Council and Committee members; Alliance leadership; and the Presidents and Executive Directors of State Specialty Societies.

- All Councils and Committees will be reviewed to ensure appropriate representation from all facets of membership, including medical students, residents, young physicians, IMG's, minorities, women, and specialties.

III. Goal III: Increase participation in legislative and regulatory process.

The Council discussed this goal at length and recognized that while legislative grassroots efforts have improved, the OSMA must take immediate action to increase physician participation in the legislative process. Regular member communication with legislators and a strong, viable OMPAC are absolutely critical if the OSMA is going to remain a strong advocate in the Legislature for its members and their patients. Also important are the building of coalitions with other organizations supportive of medicine's objectives.



A quartet from the Oklahoma City Philharmonic Orchestra performs at the Inaugural Banquet.

Actions Taken:

The legislative "key contact" program has been revitalized. Every legislator will have several member physicians who have agreed to serve as the principal points of contacts for timely communications between the OSMA and that legislator.

Following the 1997 Legislative Session, OMPAC strengthened its process for review of legislator voting records. Every vote on issues of importance to medicine is closely scrutinized and a point system has been established to ensure that OMPAC donations are consistent with regular support of OSMA's legislative agenda.

The "Doctor of the Day" program is currently an active part of the OSMA Council on State Legislation and Regulation. This volunteer service is well-received by the legislature and ensures that physicians have a continued presence in the Capitol during Session. As currently organized, Tulsa County Medical Society organizes volunteers for the month of February; the Oklahoma Osteopathic Association (OOA) handles March; the Oklahoma County Medical Society takes care of April; and the OSMA works closely with the rural county medical societies to ensure a rural physician presence during the month of May. Doctors of the Day are: briefed each morning by OSMA or OOA staff/lobbyists on key issues of concern; are introduced during the Opening Session of both Houses each day by their respective State Senator and Representative; and are strongly encouraged to meet

with their legislators and network to ensure that "medicine's voice" is heard loud and clear.

The Council on State Legislation and Regulation; chaired by Edward N. Brandt, Jr., MD, meets every other Tuesday during Session (as necessary) to thoroughly review all legislation pertinent to medicine. Consistent with the OSMA Legislative Agenda, which is approved by the Board of Trustees prior to Session, the Council votes to take a position on each bill and establishes the level of priority for lobbying efforts. The Council has improved its participation of rural physicians through teleconferencing and will continue to encourage rural physician members to become active Council members.

Prior to commencement of the 1998 Legislative Session, the OSMA approved the following changes to strengthen OSMA staff support of legislative activities: Kathy Musson, Associate Director, was named Director of Legislative and Political Affairs and Director of OMPAC; Judy Lake was named Legislative Assistant and OMPAC Assistant; Lynne White, Chief Lobbyist, was given an increase in salary; and Tracy Vargas, a 1997 graduate student in the O.U. Health Administration and Policy program, was hired to assist Ms. White.

IV. Goal IV: Secure significant physician input on all managed care decisions

- The 1997 passage of HB 1416, "Fairness in Managed Care Act," accomplished major reform for managed care plans and significant protections for doctors and their patients. Key provisions of the bill include adequate and understandable explanations for enrollees regarding what is and is not covered by the plan, improved definitions of urgent care and emergency care to adequately cover the need for treatment in urgent and emergency situations out of area, as well as a gag clause provision prohibiting insurers from preventing communications regarding the treatment options, etc. between physician and patient. In addition, the bill provides that any insurer must give physicians who have

been terminated from the plan for cause, the reasons, when requested, for termination of the contract. The bill also contains language requiring that employers of over 50 employees who offer only an HMO must also offer a point-of-service option to enrollees, and that the increased cost of such an option to enrollees be borne by the enrollee rather than burdening the employer. This bill was signed into law by the Governor on May 29, 1997.

- The Council on Medical Services, chaired by Jack J. Belter, MD, has established an Ad Hoc Committee on HMO Medical Directors which meets monthly during the Legislative Session. Members of this Committee include: the Medical Directors of the following HMO's: Heartland Health, Pacificare, Foundation Health, Prime Advantage Health, BlueLines and Community Care; the chair of the Council on State Legislation and Regulation; the Executive Director of the OOA; the President and Executive Director of the Oklahoma Association of Health Plans; as well as members of the Council. The purpose of this Committee is to establish a working dialogue with the managed care plans on matters of mutual interest. The Committee held its first meeting in January.

- The Council on Medical Services developed and distributed to the membership a "Hassle Factor Log" form for documentation of managed care problems. These forms can be completed by physicians and/or their staffs and mailed or faxed to the OSMA. The Council is collecting these responses and plans to prepare a report of the findings to the Board of Trustees. An action plan will then be developed to address and hopefully resolve the identified problems.

- HB 2578, which would authorize the State Board of Health to establish a standardized application form for use in the credentialing and recredentializing of health care providers, was authored by the OSMA and has an excellent chance of passing this Session.

Planning and Development (cont.)

Goal V: Increase the Unity and Collegiality of our Profession

The majority of actions taken by the OSMA to meet the intent of this goal and its objectives are reflected in actions reported elsewhere in this report. The OSMA is committed to improving its communications with its members and taking the steps necessary to become even more relevant to practicing physicians in the 21st Century.

Actions Taken:

- The OSMA is concerned that there has been some misunderstanding of the laws relative to professional courtesy, which were included in the Balanced Budget Act of 1997. Through appropriate educational seminars (a session has been scheduled during the 1998 Annual Meeting) as well as its publications, the OSMA will attempt to help better educate the membership on the intent of the laws and regulations germane to the professional courtesy issue.

VI. Goal VI: Improve and enhance organizational effectiveness and membership services

Actions Taken

- The OSMA completed its CEO search and hired a new Executive Director, Brian O. Foy, effective January 19, 1998.
- As discussed earlier in this report, the OSMA has hired a public relations firm and has increased its ability to communicate rapidly with a majority of its members through a blast fax network.
- The Council on Member Services, chaired by William G. Bernhardt, MD, regularly reviews its member services program to ensure OSMA members receive high quality and cost effective services and/or products from its preferred vendors. The Council is also re-evaluating each of its vendor contracts to be sure they are consistent with the guidelines recently established by the AMA in the wake of its contract with the Sunbeam Corporation.

VII. Goal VII: Communicate more effectively and efficiently with OSMA membership, patients and the people of Oklahoma.

Many of the previous actions taken to satisfy this goal have been addressed throughout this report.



William and Theta Juan Bernhardt pose with incoming President Mary Anne McCaffree.

Actions Taken:

- The OSMA has significantly enhanced its computer capabilities over the past two years. As originally planned and approved in April 1996, the OSMA began a complete renovation of its outdated computer system by upgrading from its existing AT&T Unix Server with dummy terminals to a new SCO Unix Network. The association also purchased upgraded software, including the purchase of an advanced association package entitled Association Manager from Management Concepts in Georgia. This association software has extensive database capabilities, with optional modules for accounting (accounts receivable, payables and payroll), legislative, PAC, event management and special interest group tracking. The OSMA's 5,000+ member database was successfully converted to the new software and this database has been utilized by OSMA staff for over one year. The data involved with the accounting portions of the software was more difficult to convert; however since January, 1998, the accounting package has been utilized successfully.

In addition to the upgrade of the Unix network, it was determined that the day-

to-day computer operations for the OSMA staff would be enhanced through the use of a Novell Network. Dummy WYSE terminals were systematically replaced by individual PC's, which were then networked together through the Novell Network. These workstations also have the ability to access the Unix system for use of the Association Manager programs, where the Physicians' database is stored. This networking allows the OSMA staff to share template files, information, and the ability to share a high-speed, multi-bin laser printer. Most recently, a conversion has taken place to upgrade individual workstations to Windows 95 operating systems and upgraded software programs. There only remains three workstations which will be upgraded to Windows 95 sometime in the next year, which will complete the planned computer upgrade.

The association staff routinely utilizes computer programs such as WordPerfect, Pagemaker desktop publishing, Lotus, and other miscellaneous software packages. All OSMA communications and publications are typeset inhouse by utilizing the OSMA's computer system and these various software programs.

- In order to utilize capabilities to access the Internet and OSMA's website, OSMA Online, the association installed an ISDN phone line directly to the Internet. This line is accessed from the Novell Workstations and allows all Windows 95 users to have their own e mail address and access to the association and AMA's websites. This feature is utilized routinely for communication both in-state and with the federation. As additional physicians come online, the use of e-mail should grow rapidly.

- In order to clearly define the association's computer capabilities and direction, both inhouse and with its physician members, the Board of Trustees directed that a Computer subcommittee be formed under the Council on Professional and Public Relations. This committee has met and reviewed the association's computer system and purchases over the past few years and will present a full report to the Board of Trustees at the April, 1998 meeting.

- The OSMA recognizes the OSMA

Alliance to be an important and equal partner in all of its activities and efforts. Alliance members are invited to serve on the majority of OSMA councils and committees and play an active role in the OSMA Legislative Program as well as OMPAC.

Conclusion

The Council on Planning and Development will tentatively meet sometime after the Annual Meeting to revise/update the goals and objectives as well as incorporate any new ideas and direction from the House of Delegates.

■ REPORT OF THE COUNCIL ON RURAL HEALTH

Reference Committee I (A-98)

Subject: Annual Report

Presented by: Michael Boyer, MD,
Chairman

Referred to: Reference Committee I

Introduction

The Rural Health Council provides a forum for rural physicians to meet and discuss issues of importance specific to rural Oklahoma and to develop policy recommendations for consideration by the Association, including, but not limited to, such topics as rural health care delivery, financing of medical services in rural areas, special problems of rural hospitals, recruiting physicians to rural areas, and the promotion and funding of special health care projects of interest to rural Oklahoma. The activities of the Council shall be governed by the Association's Annual Program of Activities as determined and interpreted by the Board of Trustees.

Review of Activities

The Council on Rural Health held meetings on Sunday, February 15th and Sunday, March 15th at the OSMA Headquarters. The Council meeting was well attended by Rural Trustees/Alternates, Officers and AMA Delegates/Alternates. The Council discussed and made recommendations on the following issues:

- Prepare an option to be presented to

the Legislature in regards to the expansion of the Medicaid program.

- Develop a list of talking points so that physicians in rural and urban areas of Oklahoma can speak to their representatives in regards to the concerns and issues of the Oklahoma Health Care Authority.
- Publish articles in the OSMA newsletter, Journal and Week in Review from Dr. Glenn Dewberry on the Oklahoma Health Care Authority.
- Send a letter to the Rural Legislators in regards to SB 1225 which mandates that no Ambulatory Surgery Center will be established within ten miles of an indebted municipal or county hospital located in a county of less than 100,000 citizens. The Council felt this was not in the best interest of patients or consistent with the evolution of medical care.
- Encourage each Rural physician Delegate or Officer of the OSMA bring to the Annual meeting a physician guest.

Recommendations

The Rural Health Council is strongly recommending that the OSMA House of Delegates continue with the current Trustee Representation of 500 physician members for each Trustee. This ratio has served the state well for 50 years and no evidence has been presented to justify a change. The Council feels it is in the best interest of the Association to preserve a geographic balance of Trustees so that recruitment of physicians and the health care of patients in rural Oklahoma is maintained.

Conclusion

The Rural Health Council will continue to work with the physicians in the State of Oklahoma both rural and urban. The Council will also work closely with the Council on State Legislation and Council on Medical Services.

Respectfully submitted:

Michael O. Boyer, MD, Chairman

Chester L. Bynum, MD

Carl F. Critchfield, MD

Billy Dale Dotter, MD

Roy J. Doty, MD

James S. Gerber, MD
Jay A. Gregory, MD
Joel Anderson, MD
Carl T. Hook, MD
John C. Leatherman, MD
John A. McIntyre, MD
Robert H. Phillips, MD
Fred M. Ruefer, MD
David Russell, MD
David M. Selby, MD
Bruce L. Storms, MD
Kenneth Vermette, MD
Robert J. Weedn, MD
Richard B. Winters, MD
Richard L. Winters, MD

■ REPORT OF THE CONSTITUTION & BYLAWS COMMITTEE

Presented by: Constitution & Bylaws
Committee, Bruce L. Storms, MD,
Chairman

Referred to: Reference Committee I

Review of Activities:

Following the 1997 Annual meeting of the OSMA House of Delegates, the Constitution & Bylaws Committee met on February 5th and March 25th to incorporate into the bylaws the necessary changes to integrate osteopathic physicians into full OSMA membership. Recommended changes from the Committee for osteopathic physicians are:

Page 1 line 10-19
Page 1 line 24
Page 1 line 30
Page 2 line 33-34
Page 3 line 17 (medical schools)
Page 3 line 20
Page 14 line 35
Page 24 line 28
Page 24 line 46-47 (medical schools)
Page 25 line 9

Recommended changes from the Committee for educational institutions approved by the Board of Trustees.

Page 1 line 10-17
Page 3 line 17
Page 24 line 46-47

Constitution & Bylaws Committee (cont.)

Recommendations

Your Committee recommends the above bylaws changes be approved and membership privileges for the osteopathic physicians begin January 1, 1999. The Committee also recommends to incorporate the education institutions approved by the Board of Trustees as part of the bylaw changes for osteopathic physicians.

Respectfully submitted:

Bruce Storms, MD

Joe Hester, MD

Norman Ines, MD

Perry Lambird, MD

David Russell, MD

Rebecca Tisdal, MD



Floyd F. Miller receives a Presidential Citation Award from outgoing President David M. Selby.

of Oklahoma Medical School Excellence Fund and \$20,683.31 to the Medical Student Assistance Fund. The Tulsa Campus received \$807.50 for the Medical School Excellence Fund and \$837.50 for the Medical Student Assistance Fund. The total contribution was \$32,025.91. Again this year at the Annual Convention, thanks to the time and talents of our Alliance members, we will have the "Silent Auction." There will be "Theme Baskets," "Make It, Bake It, Grow It, Sew It, and Show It Items" for everyone to bid on. So, please be generous, have fun and remember through the year you can make donations to AMA-ERF with memorial gifts, honorariums, and of course sharing cards during the Holidays.

Some of the Health Promotions across the State consisted of Shelter Showers for abused and battered women and children's shelters, Kitchen Tours that raised money for worthy charities and needs in their communities. Some even adopted needy families in their community at Christmas. Many had Breast Cancer Awareness Clinics. And, every Alliance supported the AMA's Program on S.A.V.E. (Stop America's Violence Everywhere) by distributing "Hands are not for Hitting," and the coloring books "I Can be Safe," "I Can Choose," "Be a Winner, Shape up for Life." Alliances addressed the problem of Smoking, and Teen Pregnancy,

Some of our Alliances have increased their membership and most have retained their members. We are still work-

ing on increasing our membership just as so many other organizations are. We were so pleased when the following County Presidents-Elect attended the AMA Alliance Leadership Training Conferences I or II in Chicago, Illinois: Beverly Harkness (Richard). Norman: Linda Ruefer (Fred), Muskogee; Karen Mueller (Steven), Oklahoma City; Charlotte Buntain (William), Edmond; Holly Cathey (Tim) (Jodie Edge delivered Tim 30 + years ago in Shawnee, OK), McAlester; Mary Kay Holland (David), Shawnee; Darendra McCarty, (Mike), Ardmore; Sandy Greisman (Richard), Ardmore; and Pamela Richardson (David), Tulsa.

Our Health Education Foundation has reconciled our differences with the IRS. The following nursing students will be awarded the Ann Garrison Scholarship at the Alliance House of Delegates Meeting on April 25, 1998: Audrey Browne (Tulsa) will receive \$1000; Carla Musslin (UCO) will receive \$500; Cheryl Atwell (OBU) will receive \$500, and Jennifer Thompson (OCU) will receive \$500. All will be seniors and have a 3.5 to 4.0 grade average.

I have enjoyed my year as President of the Oklahoma State Medical Association Alliance and I have enjoyed working with Dr. David Selby. The Alliance is grateful for the cooperation, support and encouragement the Oklahoma State Medical Association has given the Alliance.

Respectfully Submitted,
Doris Edge (Jodie), President
1997-1998
OSMA Alliance

REPORT OF THE OSMA ALLIANCE

Reference Committee I (A-98)

Presented by: Doris Edge, President
OSMAA

Referred to: Reference Committee 1

"Partners Dedicated to the Health of Oklahoma" was our theme this year. Alliance Members across the State worked diligently on Legislation, AMA-ERF, S.A.V.E., and Membership.

We have all worked long hours on Legislation. It was an honor to represent the Alliance at the Meetings for the Council on State Legislation and Regulation. Sherry Strebel, the Alliance Legislation Chairman kept our medical families up to date on Legislation relating to medicine with her newsletter, Legislative Express. Several of our Alliance members invited Legislators into their homes for "Legislative Desserts" in hopes of getting to know each other better.

"Donations to the American Medical Association Education and Research Foundation (AMA-ERF) are more than just charitable contributions, they are a legacy from one generation of medical professionals to another." Last year we contributed \$9,707.50 to the University

REPORT OF THE PHYSICIANS LIABILITY INSURANCE CO.

Reference Committee I (A-98)

Subject: Annual Report

Presented by: PLICO

Referred to: Reference Committee III

PLICO accomplished numerous important objectives last year, but there are many challenges that lie ahead of us. Let me review the achievements and then describe the issues your company must address in the months to come.

This year, PLICO accomplished its primary objective by conforming to the requirements set by the Insurance Department of Oklahoma for non-profit insurers. In doing so, our assets rose by \$11.7 million to \$117.4 million. Because of this increase in assets, it was possible for the Company to forgo a professional liability rate increase in 1998.

PLICO professional liability increased the number of physicians it serves from 4,129 to 4,201.

The PLICO Board prepared for the eventuality that D.O.s may become full members of the Oklahoma State Medical Association. The Board of PLICO spent numerous hours discussing and researching this issue in order to be prepared to respond to your questions about the impact of D.O. membership and to determine a fair and equitable way in which to treat D.O.s who elect to become members of the Oklahoma State Medical Association. Other insurance companies, nationwide, are rating osteopathic physicians the same way they do allopathic physicians. Their loss experience is virtually homogenous. The PLICO Board felt fair treatment constituted like treatment for osteopathic physicians who became full members of our Association. D.O.s who become OSMA members will enjoy the same premiums and make the same capital contribution as M.D.s. The insurance regulators have agreed that PLICO is not required to offer D.O.s who are non-members of our Association the same rates as members. These individuals will continue to pay the 150% premium which D.O.s now pay for PLICO insurance. Even at 150% of our premium, a large percentage of the osteopaths in Oklahoma have already purchased PLICO insurance.

D.O.s who become OSMA members will also have access to our health insurance program and will have the same insurability requirements and the same period to apply without underwriting enjoyed by M.D.s.

Last year, PLICO began to insure D.O.s who previously only had claims-made policies. M.D. physicians who had been forced to leave by their employer to take other professional liability insur-

ance began to return to PLICO. This created the need for a kind of insurance that we had previously not written. PLICO developed Nose insurance coverage. Nose insurance is the equivalent of a claims-made carrier's Tail insurance. This makes it more feasible for a newly insured osteopathic physician or a M.D. who is returning to buy a PLICO policy.

PLICO has expanded the number of loss prevention programs and their geographical spread in order to make them more convenient. Your board has arranged for CME credit for PLICO Loss Prevention Seminars.

Six months ago, I appointed a committee to review PLICO Board compensation. I asked them to look at the levels of compensation of the other physician-owned insurers. On their recommendation, the per diem will increase from \$250 to \$400 for board meetings and committee members will be compensated \$100 per hour with chairmen receiving \$125. The board chairman will receive a \$5,000 annual stipend. These changes still leave PLICO at the bottom of the list among physician-owned insurers as regards board compensation. We believe these changes were essential and ask you to approve them with this report.

Now, let me review for you some of the challenges that lie ahead. Nineteen ninety seven, without exception, was a difficult year for health insurers. HMOs wrote insurance for considerably less than the actual losses. Indemnity insurers, terrified by the changes in the law, withdrew from the marketplace. PLICO remained, but even with an overhead less than one-half that of any competitor, PLICO Health took a large loss. The decision had to be made early this year to increase premiums. PLICO Health has experienced cycles as has health insurance in general. We are now entering a cycle where all health insurance premiums are rising rapidly. We do not expect health insurers to recover all of their losses in one year. Certainly, PLICO will not. We do anticipate that by the end of the year PLICO Health's performance will be significantly improved. PLICO remains the only truly

noncancellable, guaranteed renewable, non-rateable insurance plan available.

Telemedicine looms as a significant factor in changing the dimensions of an individual physician's liability. Some of us may be caring for patients across state lines or rendering care to patients we will never meet face-to-face. The commercial insurance companies are beginning to back away from this risk. All of us on the PLICO Board feel that it is essential that PLICO find a way to appropriately rate the exposure of physicians involved in telemedicine. PLICO is the servant of Oklahoma doctors. We need to be able to render care with the assistance of these high-tech mediums. We have directed the management company to develop a rating package for physicians practicing telemedicine.

As we expected, the pedicle screw class action is disintegrating and we do not anticipate a large number of individual cases to emerge that have any serious merit. However, in an abundance of caution, we have reserved all of these cases. They already represent liabilities on PLICO's financial statements.

There has been an all out assault on physicians by the Plaintiffs Bar. It has taken the form of propaganda through the *JOURNAL OF THE OKLAHOMA TRIAL LAWYERS ASSOCIATION*. They have questioned our integrity. In the courts, they have sought to breakdown some of the fundamental safeguards in medicine. One of the issues essential to our patient's welfare that looms largest is that of the confidentiality of the deliberations of credentialing committees. A series of three cases has eroded this confidentiality and the OSMA, as an amicus curiae, in conjunction with The Hospital Association, carried the last case on appeal to the Supreme Court. The case was settled and the Supreme Court refused to hear the briefs in view of the settlement. The OSMA and the OHA are preparing legislation. We must support the passage of this legislation. Doctor Ed Brandt will be in touch with you.

The second statutory change the OSMA is trying to affect that has bearing on PLICO's liability, is the issue of off-label prescription of drugs and medical devices.

Physicians Liability Insurance Co. (continued)

We all know that off-label use of everything, including aspirin, is important for our patient's welfare. Oklahoma is one of the few states that has never legitimized this practice by statute. This legislation deserves your enthusiastic support.

There are still some hospitals and clinics buying physicians' practices, and there are others that are endeavoring to force their physicians into captive insurance companies that offer little or no security to the doctor. Sometimes, these captive insurance programs are fronted by non-admitted insurance companies that are not regulated and do not come under the aegis of the Oklahoma Guaranty Fund. PLICO's staff spends much of its time trying to explain the differences between our insurance company and these quasi insurance entities. PLICO is the only quality occurrence policy available and at a premium less than that of the mature premium of its claims-made competitors. PLICO, unlike any of the self-insurance schemes offered by hospital and clinic employers, goes with you wherever you go. No purchase of Tail insurance is required. PLICO remains our declaration of independence and our ticket to mobility whether we are employed or in private practice.

Thank you for supporting our company. Through our Association and PLICO, we insure our future freedom to practice medicine for our patient's benefit.

Respectfully Submitted,
Floyd F. Miller, M.D.
President and Chairman

REPORT OF THE SECRETARY-TREASURER

Reference Committee I (A-98)
Subject: Annual Report
Presented by: Carol B. Imes, MD,
Secretary-Treasurer
Referred to: Reference Committee I

Introduction

The annual report of the Secretary-Treasurer of the Oklahoma State Medical Association contains the following material:

Report of the Secretary-Treasurer
Report to the Board of Trustees by Ernst & Young LLP Annual Audit Report by Ernst & Young LLP Revised Annual Budgets First Quarter Statement

Background

The Association's fiscal year is the calendar year January 1 through December 31. The annual audit reports by Ernst & Young LLP cover fiscal year 1997, the revised annual 1998 budget is for January 1 through December 31 and the quarterly financial statements are for January 1 through March 31, 1998.

OSMA Asset Growth

At the present time the OSMA is in its strongest financial position since the Association was incorporated almost 100 years ago. The total asset figure exceeds figures stated in all previous years.

The Association has shown steady growth throughout the last several years by operating within the annual budget and at a surplus, thus allowing assets to reach \$19,146,828 at 12/31/97. \$247,410 of this amount is temporarily restricted and is not available for day-to-day operation of the Association as is the \$15,302,775 permanently restricted investment in PLICO.

Cash, cash equivalents and investments have shown significant growth over the last several years and totaled \$2,383,522 at 12/31/97.

Furniture, fixtures and equipment of the Association are currently valued at \$538,943 (less depreciation), over \$82,000 more than at this time last year.

The increase in depreciation reflected first year write off of computer and new phone system expenses.

Bank of Oklahoma - Trust Division

Bank of Oklahoma - Trust Division has managed OSMA reserves since 1993. Funds are primarily invested in US Treasury notes, US Treasury bills and Dreyfus Government funds according to OSMA conservative policy guidelines.

At 3/31/98 market value of investments and accumulated interest totaled \$1,296,766 and is currently drawing an average interest rate of 5.9%. Staggered maturity dates of the invested funds range from 7/31/98 - 11/15/05.

1997 OSMA Annual Audit

Ernst & Young LLP from Dallas, Texas performed an onsite annual audit of 1997 OSMA financial transactions and reviewed internal controls, policies and procedures for transactions involved in the audit.

The OSMA bylaws require that each year the Appropriations and Audit Committee review the audited statements of the Association as to the veracity of the accounts. The Committee met March 11, 1998 to review and discuss the 1997 annual audit report with Ernst & Young LLP partner, Kathryn L. Garrett and account manager, Shanin Anderson. The Ernst & Young representatives gave a detailed verbal report to the Committee



Carol Blackwell Imes and Norman K. Imes enjoy Saturday evening's event.



Three presidents meet at the Inaugural Banquet: Outgoing President David M. Selby, Incoming President Mary Anne McCaffree and Immediate Past-President David L. Harper.

reviewing the annual audit report as well as a separate report to the OSMA Board of Trustees. A report from the Appropriations & Audit Committee is presented for your review with other annual meeting committee reports.

Copies of the Ernst & Young LLP report to the OSMA Board of Trustees and the 1997 OSMA annual audit report are included for your review following the report of the Secretary-Treasurer.

A brief review of the 1997 OSMA annual audit indicates that at 12/31/97 the OSMA had \$2,383,522 in cash, cash equivalents and investments plus dues receivable of approximately \$792,594 for its 1998 and future years' operations. The cash, cash equivalents and investments growth in 1997 over 1996 was primarily attributable to an increase in the 1998 dues collected at 12/31/97 because of earlier billing and accumulating interest received on investments.

The Association realized an excess of \$369,011 revenue over expenses in 1997 and remains in a strong financial condition with assets in excess of 19 million dollars. Association assets grew in 1997 from \$19,115,751 at 12/31/96 to \$19,146,828, an increase of \$31,077.

The liability and net assets section of the statement of financial position has changed significantly from 1996. You will observe a \$133,833 decrease in accounts payable at 12/31/97. This decrease is explained by a wire having been sent to the AMA for the first time

in December 1997, instead of January 1998, to transfer 1998 AMA dues collected by the OSMA. Also a note payable of \$210,388 for the "old" defined benefit pension plan was eliminated in 1997 and the excess amount of the original accrual for distribution of the old pension plan was included as other revenue, thus increasing unrestricted net assets.

A schedule of revenues and expenses is listed in the annual report and contains a more detailed breakdown of expenses.

The rest of the annual audit report is a more detailed explanation of the Association's various operations and are adequately explained in the auditor's notes.

"Old" Defined Benefit Pension Plan

The completion of plan termination and distribution of assets from the "old" defined benefit pension plan was accomplished in 1997.

Plan benefits were frozen as of December 1992 by action of the OSMA Board of Trustees. The Board elected to pay the under funded amount of approximately \$226,000 into the plan within 3-5 years. Required annual contributions according to plan evaluations were paid by the Association for plan years since the defined benefit plan was frozen.

OSMA received a favorable determination letter on the plan from the IRS in March 1997.

\$83,924 was wired to the Trust Company of Oklahoma in Tulsa in May 1997, and final distributions to plan participants were made in the same month.

In July 1997, IRS performed an examination of the plan returns (5500-R) for year(s) ending May 1995. In September OSMA received IRS notification that the examination showed no change was necessary in the information reported and that the returns were accepted as filed.

The "old" defined benefit plan has been closed out on OSMA financial records. \$210,388 (\$ 193,000 of which was set up by Grant Thornton auditors in 1996) has been carried on the OSMA statement of financial position as

"accrued pension liability." This amount has been removed from OSMA financials and will not appear again except in previous year comparative figures. The excess amount (approximately \$ 126,000) of the original accrual increased OSMA revenue for 1997.

Employee Defined Contribution Plan

Monthly contributions of 10% of earned gross salaries have been made for eligible full-time employees of the Association in 1997.

Utica Physicians Association, Ltd. (UPAL) reports have been completed and returned to provide personnel and payroll information for the filing of IRS Form 5500.

Individual fund asset allocation models for investments are chosen and self directed by each participant. Quarterly statements from the Trust Company of Oklahoma in Tulsa are received by each plan participant showing transactions and balances of their own individual account.

Services of Certified Public Accountant:

Carl L. Hamilton, CPA and Christy Cronin, CPA were retained by OSMA during 1997 for CPA consultation services at a cost of \$820. Consultation was provided for the IRS audit of the old pension plan, new computer payroll system, Alliance public foundation status, depreciation and market value of investments.

Hamilton & Associates prepared OSMA payroll and payroll reports from May 1996, through June 1997, at which time the payroll and payroll reports were again prepared at OSMA. 1997 payroll related costs were \$1,755.

Annual corporate tax returns for OSMA, the Education & Research Foundation and the Member Service For-Profit Corporation were completed and filed by Hamilton along with the annual franchise tax return for the For-Profit Corporation at a cost of \$1,590 in 1997.

Secretary-Treasurer (continued)

Oklahoma Centralized Verified Organization (OCVO)

In 1996 and 1997, contributions of \$50,000 each year were approved by the OSMA Board of Trustees as support for the OCVO.

A commission check in the amount of \$7,042.65 was presented to OSMA by the OCVO at the January 18, 1998, meeting of the Board of Trustees. This check represented a return on money contributed to the OCVO.

Subsequent payments are to be agreed upon by OSMA and the OCVO.

Physician Recovery Program

As recommended by the Appropriations and Audit Committee, \$25,900 was written off during the first quarter of 1998 as uncollectible OSMA accounts receivable. This amount represents outstanding loan balances for loans made through the OSMA physician recovery program in years previous to January 1994.

OSMA Dues

1998 OSMA dues billings in the amount of \$1,130,000 were mailed the earlier part of November 1997. At March 31, 1998 the majority of 1998 estimated dues had been collected.

OSMA dues are the principal source of revenue for the Association. In the 1998 OSMA revised annual budget total OSMA dues revenue represented 61.1% of total anticipated revenue of the Association.

OSMA Education and Research Foundation

The OSMA Education and Research Foundation was established in 1994. The majority of financial transactions handled by the Foundation have been related to the physician recovery program. Continuing medical education financial transactions are also handled by the Foundation.

From 1994 through 1997 the physician recovery program made 3 loans with an accumulated total of \$8,000. One \$3,000 loan was made in March 1998. Payments by loan recipients toward the balances of the

loans will begin at a time considered appropriate by the director of the physician recovery program.

A brief financial statement for the Foundation is shown following the OSMA financial statement. At March 31, 1998, the Foundation is operating well within the annual budget as approved by the Board of Trustees.

A separate revised 1998 annual budget for the Education and Research Foundation is included with the OSMA budget material.

OSMA Member Service For-Profit Corporation

Annual 1997 tax returns have been filed for the Member Service For-Profit Corporation. An after-tax profit of \$20,000 from fiscal year 1997 was transferred from the For-Profit to the OSMA operating account during the first quarter of 1998.

Included with OSMA financials is a brief financial statement for the For-Profit Corporation is shown for your review.

A 1998 annual budget for the Member Service For-Profit Corporation is included with the OSMA budget and is similar to previous budgets the past four years.

1998 Revised Annual Budgets

Revised annual budgets for the OSMA, the Education and Research Foundation and the Member Service For-Profit Corporation have been prepared and reflect changes recommended by the OSMA Finance, Personnel and Compensation Committee and the Appropriations and Audit Committee. The budgets are included with this report following the 1997 annual audit report.

The Board of Trustees approved preliminary 1998 budgets at its January 18, 1998 meeting. The 1998 revised OSMA annual budget anticipates revenue of \$1,848,600 and expenditures of \$1,783,220, with a projected revenue over expense excess of \$65,380.

Amounts estimated in the 1998 OSMA revised annual budget are based on actual revenue and expense figures from accounting information available from the prior year and from estimated

cost projections of OSMA activity expected in 1998. The previous year's budget and the 1998 revised budget are shown for comparison.

The revised 1998 annual budget is reflective of the monetary requests submitted by the councils and committees for anticipated program activities and for the estimated operating expenses of the Association. With only a few exceptions, the 1998 revised budget is an extension of 1997 programs and operations.

A contingency of \$25,000 is included in the 1998 revised budget for emergency or unexpected expenses. Contingency funds have been included in the OSMA annual budget since 1993 in compliance to a directive from an Association financial advisory committee. Any major expenditures or increases in program expense will require additional funding.

1998 First Quarter Financial Statement

At March 31, 1998, the OSMA financial statement indicated year-to-date revenue over expenses of \$198,721. Revenue of \$462,153 was budgeted at 3/31/98, compared to actual received \$573,048. Expenses of \$448,302 were budgeted at 3/31/98, compared to actual expenditures \$374,327.

Conclusion

Audited 1997, OSMA financial statements reflect year-to-date revenue over expenses of \$369,011. The financial information submitted is an accrual representation of OSMA's financial condition.

The revised OSMA 1998 annual budget conservatively predicts revenue over expenses of \$65,380 which should be adequate to fund the projected programs and operations of the Association. The budget is based on a realistic and historical projection of revenue and expenses.

A 1998 first quarter financial statement recorded revenue over expenses of \$198,721 which is within the 1998 revised budget estimates.

The OSMA is presently in the best financial position in its existence and a

dues increase is not anticipated or required.

Recommendations

1. Approval of the 1997 annual audit by Ernst & Young.
2. Approval of the 1998 annual revised budgets.
3. Approval of the 1998 first quarter financial statement.

Respectfully Submitted,

Carol B. Imes

Secretary-Treasurer

AUDIT REPORT TO THE OSMA BOARD OF TRUSTEES

March 11, 1998

Board of Trustees

Oklahoma State Medical Association

Members of the Board:

We are pleased to present the results of our audit of the financial statements of Oklahoma State Medical Association (the "Association") for the year ended December 31, 1997. Our approach for the Association was designed to combine our historical knowledge of the Association's core operations with current and emerging business issues.

This Report to the Board summarizes the scope of our engagement and provides communications required by professional standards.

The completion of this year's audit was accomplished through excellent support and assistance from the Association's professional staff.

As always, we strive to continuously improve the quality of our services and welcome your feedback on ways we can continue to meet and exceed your expectations. If you have any questions regarding the 1997 audit or any other matters, please call Kathy Garrett at 214/969-8568.

Very truly yours,
Ernst & Young, LLP

Summary of Audit Scope

Our audit was completed as planned. This plan which was discussed with the Association's Secretary/ Treasurer in the October 1997 audit planning meeting, was designed to focus on risk areas that would allow us to render an opinion on the December 31, 1997, financial statements.

In addition, as a regular part of our audit of the financial statements, we made a study and evaluation of internal control only to the extent we considered necessary to determine the nature, timing, and extent of our auditing procedures. This study was not sufficient to enable us to render a separate opinion on the effectiveness of the internal control structure over financial reporting. Also, our audit would not necessarily disclose all weaknesses in the system of internal control because it was based on selective tests of accounting records and supporting data. However, as a result of our study and evaluation, for the limited purposes described above, no material weaknesses in internal accounting control came to our attention during the performance of our audit procedures.

Communications Required by Professional Standards

Statement of Auditing Standards No. 61 requires the auditor to ensure that the Board receives additional information regarding the scope and results of the audit that may assist the Board in overseeing the Association's financial reporting and disclosure process. Summarized below are certain of the more significant matters noted in connection with our audit and comments on certain specific matters that current practice requires to be communicated to the Board.

Auditors' Responsibilities under Generally Accepted Auditing Standards

The financial statements are the responsibility of the Association's management and Board. Our audit was designed in accordance with generally accepted auditing standards which provides for reasonable, rather than absolute, assurance that the financial statements are free of material misstatement. We have a responsibility to opine on

whether the financial statements are fairly stated in accordance with generally accepted accounting principles.

Our responsibility as your auditors is to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. As such, our audit of the Association's financial statements is not designed to determine the Association's readiness for the Year 2000. Further, we have no responsibility with regard to the Association's efforts to make its systems, or any other systems, such as those of vendors, service providers, or any other third parties Year 2000 ready, or to provide assurance on whether the Association has addressed or will be able to address all affected systems on a timely basis.

Comments

As a part of our audit, we obtained a sufficient understanding of internal controls to plan our audit and to determine the nature, timing and extent of our audit procedures. Our report dated February 6, 1998, renders an unqualified opinion on the Association's 1997 financial statements.

Significant Accounting Policies

Initial selection of and changes in significant accounting policies or their application and new accounting and reporting standards during the year.

Comments

No significant changes in accounting policies or adoption of new accounting or reporting standards in 1997.

Management Judgments and Accounting Estimates

The preparation of financial statements requires the use of accounting estimates. Certain estimates are particularly sensitive due to their significance to the financial statements and the possibility that future events may differ significantly from the Association's expectations.

Comments

While not material at this time, the Association should monitor the collectibility of its receivables, and estimate an allowance for uncollectible amounts.

Audit (continued)

Significant Audit Adjustments

Comments

No audit adjustments were recorded. Audit adjustments identified during the audit but not recorded were immaterial to the financial statements individually and in the aggregate.

Significant Unusual Transactions

Auditing Standard No.61 requires communications to the Board about methods used to account for significant unusual transactions.

Comments

None identified

Controversial or Emerging Areas

Auditing Standard No.61 requires communications to the Board about the effects of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.

Comments

None identified

Disagreements with Management on Financial Accounting and Reporting Matters

None

Consultation with Other Accountants

None

Major Issues Discussed with Management Prior to Retention

None

Serious Difficulties Encountered in Performing the Audit

None. Cooperation during the audit was excellent.

Material Errors, Irregularities and Illegal Acts

None identified.

Significant Disclosures Not Made

None

Material Weaknesses or Reportable Conditions

Auditing Standard No. 60 requires that any reportable conditions noted be communicated to the Board. Such conditions are defined as matters which represent significant deficiencies in the design or operation of the internal control structure, which would adversely affect the Association's ability to record, process, summarize and report financial data consistent of the assertions of the Association in the financial statements.

Comments

None identified

FINANCIAL STATEMENTS AND SUPPLEMENTAL SCHEDULES

Years ended December 31, 1997 and 1996 with Report of Independent Auditors

Report of Independent Auditors

Board of Trustees
Oklahoma State Medical Association

We have audited the accompanying statements of financial position of Oklahoma State Medical Association (an Oklahoma corporation) as of December 31, 1997 and 1996, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Oklahoma State Medical Association, at December 31, 1997 and 1996, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

See accompanying notes.

Oklahoma State Medical Association STATEMENTS OF FINANCIAL POSITION

	December 31	
	1997	1996
Assets		
Cash and cash equivalents	\$ 1,104,436	\$ 1,302,231
Investments	1,279,086	822,230
Accounts Receivable, primarily membership dues	792,594	1,006,916
Inventory	-	18,013
Prepaid expenses	16,169	11,933
Property and equipment, at cost:		
Land	7,808	7,808
Building and improvements	486,857	486,857
Furniture, fixtures, and equipment	538,943	456,560
	1,033,608	951,225
Less accumulated depreciation and amortization	(406,743)	(323,220)
	626,865	628,005
Other investments:		
Investment in PLICO	15,302,775	15,302,775
Equity in unconsolidated subsidiary—MSC	24,903	23,648
	15,327,678	15,376,423
Total assets	\$ 19,146,828	\$ 19,165,751

Financial Statements (continued)

Liabilities and Net Assets

Accounts payable	\$ 169,774	\$ 303,607
Accrued pension costs	-	210,388
Deferred membership dues	1,130,000	1,131,848
Total liabilities	1,299,774	1,645,843
Net assets:		
Unrestricted	2,296,869	1,977,858
Temporarily restricted	247,410	239,275
Permanently restricted— Investment in PLICO	15,302,775	15,302,775
Total net assets	17,847,054	17,519,908
Total liabilities and net assets	\$19,146,828	\$19,165,751

See accompanying notes.

Oklahoma State Medical Association STATEMENTS OF ACTIVITIES

	Year ended December 31 1997	1996
Unrestricted Net Assets		
Support and revenues:		
Membership dues	\$ 1,040,238	\$ 998,808
Investment income	109,541	626,362
Advertising and sales—directory	40,120	73,724
Annual meeting	84,697	73,906
Contracts with PLICO	337,500	437,500
Journal	110,067	115,097
Equity in earnings of unconsolidated subsidiary—MSC	1,255	10,185
Other revenues and support	279,631	211,514
Total support and revenues	2,003,049	2,547,096
Expenses:		
Program services:		
Member services	570,828	426,366
Educational programs	-	61,655
Publications	88,252	144,270
Supporting services—general and administrative	974,958	1,012,960
Total expenses	1,634,038	1,645,251
Increase (decrease) in unrestricted net assets	369,001	901,845
Temporarily Restricted Net Assets		
Investment income	8,135	7,868
Increase in total net assets	377,146	859,713
Net assets at beginning of year	17,469,908	16,610,195
Net assets at end of year	\$ 17,847,054	\$ 17,519,908

See accompanying notes.

Oklahoma State Medical Association STATEMENTS OF CASH FLOWS

	Year ended December 31 1997	1996
Operating Activities		
Increase in net assets	\$ 377,146	\$ 909,713
Adjustments to reconcile increase in net assets to net cash provided by operating activities:		
Depreciation and amortization	83,522	65,958
Equity in earnings of unconsolidated subsidiary— MSC	(1,255)	(10,185)
Changes in operating assets and liabilities:		
Accounts receivable	214,322	(49,685)
Inventory	18,013	(128)
Prepaid expenses	(4,236)	(2,865)
Accounts payable	(133,833)	(22,964)
Accrued pension costs	(210,388)	(4,628)
Deferred membership dues	(1,848)	26,216
Net cash provided by operating activities	341,443	911,432
Investing Activities		
Purchase of investments	(456,855)	(473,194)
Proceeds from sale or maturity of investments	-	200,000
Purchases of property and equipment	(82,383)	(120,109)
Net cash used in investing activities	(539,238)	(443,303)
Net increase in cash and cash equivalents	(197,795)	468,129
Cash and cash equivalents at beginning of year	1,302,231	834,102
Cash and cash equivalents at end of year	\$1,104,436	\$1,302,231

See accompanying notes.

Oklahoma State Medical Association NOTES TO FINANCIAL STATEMENTS

December 31, 1997

1. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation

The Oklahoma State Medical Association (the Association) was formed as a not-for-profit organization that provides educational and various other services to the members of the medical profession in the state of Oklahoma. Its wholly owned subsidiary, Member Services Corporation (MSC), provides other miscellaneous services to members of the Association.

The Association also owns 100% of the outstanding common stock of Physicians Liability Insurance Company (PLICO), which provides professional medical liability insurance and certain health and accident insurance to physicians who are members of the Association and to other qualified Oklahoma physicians. See Note 3.

The OSMA Education & Research Foundation (the Foundation) is a related not-for-profit organization that primarily provides referral services and financial assistance for members suffering from substance abuse disorders. The Foundation also provides for certain medical scholarship loans and grants. The Association's Board of Trustees are the sole voting members of the Foundation. The Association provides certain administrative services for the Foundation. Such services are not considered material to the Association.

The Oklahoma Centralized Verification Organization (OCVO) was established to provide efficient and effective credentialing of physicians and allied health professionals statewide to hospitals, group practices, insurers, managed care organizations, and others. The Association expensed a \$50,000 investment in the OCVO in 1997 and 1996.

Revenue Recognition

Membership dues are recognized ratably over the membership period.

Cash and Cash Equivalents

All highly liquid debt instruments with a maturity at purchase of three months or less and money market funds are considered to be cash equivalents.

Income Taxes

The Association was organized as a not-for-profit organization and, as such, is exempt from income taxes under Section 501(c)(6) of the Internal Revenue Code of 1986, as amended. The Association does, however, pay income taxes on unrelated business income, if any.

Property and Equipment

Depreciation is computed using the straight-line method over the estimated useful lives of the assets.

Investments

Investments in fixed income securities are recorded at fair value at December 31, 1997, and at amortized costs at December 31, 1996. See Note 2.

Generally, unconsolidated subsidiaries in which the Association has a controlling interest are accounted for by the equity method and unconsolidated subsidiaries in which the Association does not have a controlling interest are accounted for by the cost method.

In 1995, the Association changed its method of accounting for its investment in PLICO to the cost method because neither the Association nor its Board of Trustees has a controlling interest in PLICO or is able to exercise significant influence over operating and financial policies of PLICO. Prior to January 1, 1995, the Association accounted for its investment in PLICO using the equity method. Net assets at the beginning of 1995 have been adjusted for this change.

The Association accounts for its investment in MSC using the equity method. The assets, liabilities, and results of operations of MSC are not considered material to the Association and therefore are not consolidated.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the Association to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

2. Investments

Statement of Financial Accounting Standards No. 124, Accounting for Certain Investments Held by Not-for-Profit Organizations, which became effective January 1, 1996, requires that all investments in debt securities be reported at fair value with gains and losses included in the statement of activity. At December 31, 1996, the Association carried its investments in debt securities at cost or amortized cost in its statements of financial position because such amounts were not materially different from fair value. At December 31, 1997, the Association carried its investments in debt securities at fair value in accordance with FAS 124. The cost or amortized cost and estimated market value of investments in fixed income securities at December 31, 1997 and 1996, are as follows:

	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Market Value
December 31, 1997				
U.S. Treasury securities	\$1,263,624	\$17,618	\$2,156	\$1,279,086
December 31, 1996				
U.S. Treasury securities	\$822,230	\$14,702	\$2,452	\$834,480

The cost or amortized cost and estimated market value of investments in fixed income securities, by contractual maturity, at December 31, 1996, are as follows:

	Cost or Amortized Cost	Estimated Market Value
1998	\$ 263,860	\$ 263,867
1999 through 2003	999,764	1,015,219
	\$1,263,624	\$1,279,086

3. Investment in PLICO

PLICO was formed to provide professional medical liability insurance and certain health and accident insurance to physicians who are members of the Association and to other qualified Oklahoma physicians. The business affairs of PLICO are managed by a Board of Directors that is not controlled by the Association or its Board of Trustees. PLICO is domiciled in Oklahoma and is subject to regulatory oversight by the Oklahoma

Insurance Department (the Department). The financial statements of PLICO are prepared in conformity with the accounting practices prescribed or permitted by the Department (statutory accounting practices), which is a comprehensive basis of accounting other than generally accepted accounting principles (GAAP).

The primary source of capital for PLICO has been through periodic assessments of members by the Association. Statement of Financial Accounting Standards No. 117, Financial Statements of Not-for-Profit Organizations, requires not-for-profit organizations like the Association to report the amounts for each of three classes of net assets: permanently restricted net assets, temporarily restricted net assets, and unrestricted net assets—based on the existence or absence of donor-imposed restrictions. Although the assessments were involuntary and therefore cannot contain donor-imposed restrictions, the Association has accounted for the assessments as permanently restricted because such assessments were intended to provide PLICO with permanent capital.

PLICO uses independent consulting actuaries to review its evaluation of the required level of reserves for losses and loss adjustment expenses. The consulting actuaries determined a low reasonable estimate and a high reasonable estimate for PLICO's professional medical liability loss and loss adjustment expense reserves. These estimated discounted net reserves ranged from \$73,433,000 to \$122,847,000 at December 31, 1997, and \$70,997,000 to \$117,524,000 at December 31, 1996. PLICO's discounted net reserves for professional medical liability losses and loss adjustment expenses, net of reinsurance balances, plus surplus as regards policyholders in excess of the \$4,000,000 statutory minimum (see below) were approximately \$99,516,000 and \$90,785,000 at December 31, 1997 and 1996, respectively, and were within the consulting actuaries' recommended ranges. In addition, the recorded reserves were in compliance with the levels permitted by the Department. However, the recorded reserve without regards to the permitted practice described below was approximately \$88,459,000 and \$79,885,000 at December 31, 1997 and 1996, respectively, which is below the mid-point of the estimated discounted net reserve range. To the extent actual loss experience develops higher than the recorded amount, PLICO would need to take immediate action to increase reserves and surplus as regards policyholders. Under similar historical circumstances PLICO has increased reserves and maintained surplus through premium increases and/or special assessments of members by the Association.

In 1995 and 1996, PLICO received written approval from the Insurance Department of Oklahoma (the Department) to report at a prescribed level of discounted loss and loss adjustment expense reserves which is below the midpoint of PLICO's consulting actuaries range. This agreement with the Department required PLICO to increase discounted net professional medical liability reserves plus surplus as regards policyholders in excess of the \$4,000,000 statutory minimum, to approximately 50% of its consulting actuaries' range of discounted reserves by December 31, 1997. PLICO is in compliance with the terms of the agreement at December 31, 1997. The Board of Directors of PLICO currently intends to maintain reserves for losses and loss adjustment expenses plus excess statutory surplus at approximately 50% of the consulting actuaries' reserve range level permitted by the Department, which the Board of Directors of PLICO believes is consistent

Financial Statements (continued)

with the not-for profit philosophy of PLICO and the not-for-profit objectives of the Association.

The reserves for unpaid losses and loss adjustment expenses are estimated using case-basis valuations and statistical analyses and represent the estimated ultimate net cost of all reported and unreported losses incurred during the year. Among the factors considered in determining the liability are cumulative payments made on losses and loss adjustment expenses by accident year, PLICO's case-basis estimates of the remaining liability for losses and loss adjustment expenses on reported claims, and an estimate for claims incurred but not reported (IBNR) and development of case-basis estimates. These estimates are subject to the effects of trends in loss severity and frequency. Although considerable variability is inherent in such estimates, the Board of Directors of PLICO believes that the reserves for losses and loss adjustment expenses are adequate. The estimates are continually reviewed and adjusted as necessary as experience develops or new information becomes known; such adjustments are included in PLICO's current operations.

The most reasonable estimate of a liability for unpaid losses and loss adjustment expenses is made when: 1) the period of time between the loss occurrence and ultimate settlement is short; 2) the absolute number of policies is high, resulting in more meaningful average cost amounts; and 3) a large base of historical data exists. Because of the length of time required for the development of the ultimate liability and PLICO's small policy base, there is a significant degree of uncertainty in PLICO's reserve estimates. Accordingly, the ultimate settlement of losses and loss adjustment expenses may vary significantly from the estimated amounts included in PLICO's statutory-basis financial statements.

At periodic intervals, the Department routinely examines PLICO's statutory-basis financial statements as part of their legally prescribed oversight of the insurance industry.

On the basis of these examinations, the Department can direct that PLICO's statutory-basis financial statements be adjusted in accordance with their findings. The Department has completed a triennial examination of PLICO's statutory-basis financial statements for the period ended December 31, 1995. No material adjustments were found.

The following is unaudited summarized financial information for PLICO on a GAAP basis as of and for the years ended December 31, 1997 and 1996:

	1997	1996
	<i>(In Thousands)</i>	
Cash and invested assets	\$ 116,957	\$104,250
Reinsurance balances	55,229	49,345
Other assets	2,364	1,484
Total admitted assets	\$ 174,550	\$155,289
Liability for losses and loss adjustment expenses	\$148,037	\$ 133,081
Advance premiums	9,437	7,081
Other liabilities	121	18
Total liabilities	157,595	140,180
Stockholders' equity	16,955	15,109
Total liabilities stockholders' equity	\$174,550	\$155,289
Premiums earned	\$ 51,134	\$ 46,612
Losses and loss adjustment expenses incurred	(48,046)	(43,423)
Other underwriting expenses	(9,738)	(9,363)
Net investment income	7,165	6,807
Federal income tax	(360)	
Net income	\$155	\$ 633

PLICO paid the Association \$337,500 and \$437,500 in 1997 and 1996, respectively, for services to control liability losses through research and promotion of good medical practices. These amounts have been included as revenues by the Association.

Investment income includes a \$500,000 distribution the Association received from PLICO in 1996.

4. Employee Benefit Plans

On October 29, 1995, the Association's Board of Trustees approved termination of the Association's defined benefit pension plan. The termination process began in the first quarter of 1996 with notices of intent to terminate being distributed to participants and was completed on or about May 31, 1997, with settlement of all benefit liabilities. As a result of this termination, and thus the elimination of future service periods, the Association accrued pension costs of approximately \$215,000 during 1995. This accrual was the additional amount necessary to fully fund all benefit liabilities at settlement and was based on certain actuarial estimates and assumptions. The Association paid approximately \$5,500 of this accrual to the plan in 1996. In 1997, the Association paid out all remaining liabilities associated with the termination which totaled approximately \$83,000, \$126,000 less than the original accrual. The excess amount (approximately \$126,000) of the original accrual has been included in other revenues in the accompanying 1997 Statement of Activities.

Separately, the Association sponsors a defined contribution plan that covers substantially all full-time employees. Contributions to the plan are at the discretion of the Association. Expense relating to this plan was approximately \$23,200 and \$61,000 in 1997 and 1996, respectively.

5. Year 2000 - Unaudited

The Association purchased a new data processing system in mid 1997 that is expected to be Year 2000 compliant. Therefore, the Association believes it will be ready for year 2000 but may incur an additional expense.

SUPPLEMENTAL INFORMATION

Report of Independent Auditors on Supplemental Information

Board of Trustees
Oklahoma State Medical Association

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule of revenues and expenses and schedule of general and administrative expenses by type are presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information, except for that portion marked "unaudited", on which we express no opinion, has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Ernst & Young, LLP
February 6, 1998

**Oklahoma State Medical Association
SCHEDULE OF REVENUES AND EXPENSES**

Year ended December 31, 1997

	Budget	Actual
	<i>(Unaudited)</i>	
Support and revenues by budget category:		
Membership dues	\$1,040,000	\$1,040,238
Commissions and interest		169,586
Advertising and sales—directory	70,000	40,120
Contracts with PLICO	337,500	337,500
Lease income	37,200	39,600
Journal	112,000	110,067
Annual meeting	62,500	84,697
Other	88,000	181,241
Total support and revenues	<u>1,904,200</u>	<u>2,003,049</u>
Expenses by budget category:		
Member services:		
Annual meeting	60,000	93,111
Councils and committees	259,000	234,753
Other	275,000	242,964
	<u>594,000</u>	<u>570,828</u>
Publications	104,000	88,252
General and administrative	1,160,779	974,958
Total expenses	<u>1,858,779</u>	<u>1,634,038</u>
Increase in unrestricted net assets	<u>\$ 45,421</u>	<u>\$ 369,011</u>

**Oklahoma State Medical Association
SCHEDULE OF GENERAL AND ADMINISTRATIVE
EXPENSES BY TYPE**

Year ended December 31, 1997

	Budget	Actual
	<i>(Unaudited)</i>	
Salaries	\$ 451,100	\$ 389,884
Payroll taxes	45,000	31,616
Pension plan contribution	35,000	23,195
Pension plan trustee fee and other	85,079	1,155
Health insurance	47,000	35,323
Staff and officers	125,000	120,454
Disability income insurance	3,200	2,604
In-state travel	1,000	340
Office supplies	50,000	41,343
Equipment repairs and service	3,000	939
General insurance	35,000	25,518
Utilities	22,000	21,839
Building maintenance, remodeling, and yard maintenance	28,000	18,524
Accounting and legal	75,000	142,943
Computer and computer upgrade	74,000	21,058
Dues and subscriptions	12,000	3,616
Depreciation	55,000	83,650
Other	14,000	10,957
	<u>\$ 1,160,779</u>	<u>\$ 974,958</u>

**Oklahoma State Medical Association
1998 REVISED BUDGET**

	1997 Final Budget	1998 Revised Budget
Support and Revenue		
Membership		
OSMA Ducs	\$1,040,000	\$1,040,000
Interest	110,000	105,000
AMA Commissions	47,000	50,000
Building Lease	37,200	37,200
Directory Sales & Advertising	70,000	55,000
Computer Labels	8,000	8,000
Member Service For-Profit	20,000	20,000
Member Service Council	35,000	20,000
Contract with Subsidiary—PLICO	337,500	337,500
Other	<u>25,000</u>	<u>2,000</u>
Total Membership Support & Rev.	1,729,700	1,674,700
Journal		
Subscription	2,000	3,900
Dues Allocation	60,000	60,000
Advertising	<u>50,000</u>	<u>25,000</u>
Total Journal Support & Revenue	112,000	89,000*
Annual Meeting		
Exhibit Fees	20,000	30,000
Dues Allocation	30,000	30,000
Ticket Sales	<u>12,500</u>	<u>25,000</u>
Total Annual Meet. Support & Rev.	62,500	85,000
Total Support and Revenue	\$1,904,200	1,848,600
Program Services and Support Expenses		
Councils & Committees	\$ 259,000	\$ 299,300
Journal	104,000	80,250
Annual Meeting	60,000	77,150
General & Administrative	1,433,012	1,301,520
Contingency	<u>2,767</u>	<u>25,000</u>
Total Program Services & Support	<u>\$1,858,779</u>	<u>\$1,783,220</u>
Excess of Revenue over Expenses	\$ 45,421	\$ 65,380
Program Services		
Journal Expenses		
Salaries	\$ 0	\$ 0
Printing	86,500	60,000
Art Work	7,500	3,750
Proofreading	1,000	500
Operating	<u>9,000</u>	<u>16,000</u>
Total Journal Program Services	104,000	80,250*
Annual Meeting Expenses		
Travel	500	100
Exhibit	1,500	2,000
Photo	1,000	1,500
Planning	100	100
Printing	7,000	12,000
Supplies	6,400	9,000
Speakers	1,500	5,000
Entertainment	5,000	2,000
Lunches & Receptions	0	5,000
Signs & Security	1,000	1,200
Audio Visual	750	750
Awards & Trophies	2,250	2,500
Hotel & Convention	32,000	35,000
Flowers	<u>1,000</u>	<u>1,000</u>
Total Annual Meeting Prog. Serv.	\$ 60,000	\$ 77,150

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1998 Budget (continued)

(table continued from previous page)

Council & Committee Expenses		
Prof. & Public Relations	\$ 53,000	\$ 53,000*
Planning & Development	5,000	2,500
Medical Services	1,000	1,000
Member Services	20,000	20,000
Public & Mental Health	1,000	1,500
State Legislation	116,500	132,000
OMPAC	0	10,800
Governmental Activities	35,000	41,500
Organized Medical Staff	1,000	4,000
Alliance Activities	10,000	10,000
Student Section	10,000	10,000
Resident Section	2,000	1,000
Rural Health	1,000	1,500
Young Physician Section	2,500	7,500
International Med. Graduates	<u>1,000</u>	<u>2,000</u>
Medical Ethics & Competency	0	1,000
Total Council & Comm.Prog.Serv.	\$ 259,000	\$ 299,300

Supporting Services

Membership		
Salaries	\$ 451,000	\$ 480,000
Payroll Tax	45,000	45,000
Profit Sharing Plan	35,000	46,575
Pension Plan—Termination	85,079	0
Health Insurance	47,000	49,450
Staff & Officers	75,000	85,000
Executive Director Search	50,000	0
Disability Insurance	3,200	3,355
In-state Travel	1,000	500
Office Supplies	50,000	40,000
Equipment Repair & Service	3,000	1,000
Postage	50,000	40,000
Telephone	30,000	25,000
General Insurance	35,000	35,000
Utilities	22,000	22,000
Services	6,000	5,000
Building Maint. & Repair	21,000	12,000
Yard Maintenance	7,000	6,000
Accounting & Audit	13,500	12,000
Legal	62,000	60,000
Computer	35,000	35,000
Internet	15,000	15,000*
Computer Upgrade	24,000	24,000
New Telephone System	20,733	0
Dues & Subscriptions	12,000	6,000
Awards & Contributions	3,500	2,500
County Dues Commissions	27,000	25,000
AMA	85,000	131,140
Depreciation	55,000	80,000
Trustee Fee—Reserves	4,000	3,000
OVCO	50,000	0
Other	<u>10,000</u>	<u>12,000</u>
Total Membership		
Supporting Services	\$1,433,012	\$ 1,301,520

* It is anticipated that upon approval of a bylaws change this budgeted amount will be combined under a new council.

1998 ITEMIZED COUNCIL & COMMITTEE BUDGETS EXCEEDING \$5,000

State Legislation & Regulation	
Contract Lobbyists	\$ 92,000
Print Legislative Bills, Newsletters and Mailings	9,000
Medicine Day or Doctor of the Day Contact Program	5,000
Legislative Conference Travel	4,500
Legislative Tracking Service	4,000
Copy and Fax Legislative Bills and Alerts	4,000
Legislator Requested Sponsorship	3,000
Catering for Council Meetings	2,500
Legislative Dinners and Contact Lunches and Dinners	2,500
Legislative Reporter Subscription	1,690
Doctor of the Day at Capitol Drugs	1,500
Box at Capitol	500
Professional Dues and Publications	500
Miscellaneous	1,160
Total State Legislation & Regulation	<u>\$132,000</u>
OMPAC	
Printing	3,600
Bulk Mailings	3,200
Telephone Conference Calls	2,000
Catering for Meetings	1,000
Postage, Copying and Office Supplies	1,000
Total OMPAC	10,800
Council on Governmental Activities	
Contract Lobbyist	\$25,000
Contract Lobbyist Miscellaneous Expenses	2,500
Trips to Washington, DC, for 3	<u>14,000</u>
Total of Council on Governmental Activities	<u>\$41,500</u>
Member Services	
Seminar Meeting Rooms, Equipment and Refreshments	\$ 7,000
Seminar Printing and Mailing Service	6,000
Seminar Speakers	6,000
Miscellaneous	1,000
Total Member Services	<u>\$20,000</u>
OSMA Alliance	
Direct Transfer to Alliance	\$ 5,000
Mailings, Supplies, Staff AMA Trip, etc.	<u>5,000</u>
Total OSMA Alliance	<u>\$10,000</u>
OSMA Medical Student Section	
AMA Convention	\$ 4,000
Annual Picnic	5,000
Meals, Miscellaneous	<u>1,000</u>
Total OSMA Medical Student Section	<u>\$10,000</u>
Young Physician Section	
AMA Convention	\$ 7,500
Total Young Physician Section	<u>\$ 7,500</u>
Professional & Public Relations	
OSMA Directory	18,500
Printing - OSMA News, Year-in-Review, etc.	18,000
Mailing Service	5,500
Special Projects	5,000
Brochures, Pamphlets, Newspapers, etc.	2,400
Travel	1,000
Donations & Miscellaneous	1,000
Clipping Service	600
Catering	400
Photos	300
Miscellaneous	<u>300</u>
Total Professional & Public Relations	<u>\$53,000</u>

**AMERICAN MEDICAL ASSOCIATION
PROPOSED BUDGET FOR 1998
(SUBMITTED BY AMA DELEGATION CHAIR -
JAY A. GREGORY, MD)**

AMA Delegation Expenses

Annual Meeting	
16 Delegates @ \$300 per day for 7 days	\$ 33,600
16 Delegates travel @ \$400*	6,400
OSMA Staff travel and expenses	4,500
Heart of America (OSMA will host caucus 1998)	3,000
Suite for meetings**	4,000
Miscellaneous brochures, conference calls, etc***	1,500
Total Delegation - Annual Meeting	\$ 53,000
Interim Meeting	
16 Delegates @ \$300 per day for 6 days	\$ 28,800
16 Delegates travel @ \$965	15,440
OSMA Staff travel and expenses	5,600
Heart of America (OSMA will host caucus in 1998)	3,000
Suite for meetings**	4,000
Miscellaneous brochures, conference calls, etc.***	1,500
Total Delegation - Interim Meeting	\$ 58,340
Total Delegation Costs	\$111,340
Add: Yearly Contribution to AMA	
Candidates Campaign Fund	\$ 5,000
Total All AMA Delegations Expenses	\$116,340

* Air fare was \$500 - reduced to supersaver \$400

** Lunches to be billed to delegation

*** Miscellaneous Reduced by Half

Other AMA Expenses

AMA Leadership	
President-Elect	\$ 2,000
OSMA Staff	2,000
Federation Coordination Team Dues	
Payable for 1997, 1998 and 1999	1,500
Membership Meeting	
(Possibly Unified States Meeting)	1,000
Brochures	
PRA Booklet and Miscellaneous	800
Executive Officers	
Annual Meeting	
President hotel, travel and food	\$ 3,500
Interim Meeting	
President hotel, travel and food	\$ 4,000
Total of Other AMA Expenses	\$ 14,800
Total AMA Budget	\$ 131,140

**OSMA EDUCATION AND RESEARCH FOUNDATION
1998 REVISED BUDGET**

Foundation Revenue	
Bank Interest	\$ 3,000
Foundation Expenses	
Bank Charges	50
Annual Tax Return	500
Total Foundation Expenses	550
Foundation Excess Revenue over Expenses	\$ 2,450

Physician Recovery Program Revenue

PLICO	\$125,000
Oklahoma Osteopathic Association	12,000
Oklahoma Dental Association	12,000
Contributions/Other	500
Total Physician Recovery Program Revenue	149,500

(financial statements continued on next page)

Physician Recovery Program Expenses

Director	\$ 75,000
Loans	6,000
Hotline	1,500
Travel	1,500
Total for Director	84,000
Associate Director (OKC)	12,000
Associate Director (Tulsa)	19,500
Travel for Associate Directors	3,000
Total for Associate Directors	34,000
Program Loans	10,000
Meetings	3,000
Membership Dues	500
Brochures, Programs & Speakers	14,000
Total Meetings, etc.	\$ 17,500
Total Physician Recovery Program Expenses	\$146,000
PRP Excess Revenue over Expenses	<u>\$ 3,500</u>

Council on Medical Education Revenue

Hospital Accreditation	\$ 2,400
Contributions from dues	100
Total Council on Medical Education Revenue	\$ 2,500

Council on Medical Education Expenses

Survey Fees	\$ 1,500
Travel - Dr. Sheldon/CME Coordinator/Site Surveyors	1,000
Meeting catering	500
Accreditation	800
Conference registration	800
CME provider annual meeting (2 programs)	<u>\$ 3,000</u>
Total Council on Medical Education Expenses	\$ 7,600

Council on Medical Education Revenue over Expenses \$ (4,100)

OSMA Education & Research Foundation

Proposed Budget Total Revenue Over Expenses	\$ 850
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**OSMA MEMBER SERVICE FOR-PROFIT CORPORATION
1997 Revised Budget**

Revenue	
C.L. Frates	\$ 8,000
I.C. Systems	6,000
Destinations	300
Tax Resources	2,000
Conomikes	1,500
Autoflex	1,000
UPAL	1,000
Bank Interest	<u>300</u>
Total Revenue	\$23,500

Expenses

Federal & State Taxes	\$ 3,000
Tax Return	500
Total Expenses	<u>\$ 3,500</u>

Excess of Revenue over Expenses	\$20,300
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Financial Statements (continued)

1998 FIRST QUARTER REPORT

Oklahoma State Medical Association STATEMENT OF FINANCIAL POSITION

	YTD March 31 1998	YTD March 31 1997
Assets		
Current Assets		
Cash and cash equivalents	\$ 1,551,838	1,267,317
Investments	1,296,766	1,202,298
Accounts receivable	282,776	253,052
Inventory	0	18,013
Prepaid expenses	<u>16,169</u>	<u>5,933</u>
Total Current Assets	<u>3,147,549</u>	<u>2,746,613</u>
Property And Equipment		
Land	7,808	7,808
Building and improvements	486,857	486,857
Furniture, fixtures and equipment	<u>538,943</u>	<u>456,561</u>
	1,033,608	951,226
Less: accumulated depreciation and amortization	<u>(406,742)</u>	<u>(323,232)</u>
Total Property and Equipment	<u>626,865</u>	<u>627,994</u>
Other Investments		
Investment—OSMA Mbr. Serv. Corp.	24,903	13,463
PLICO Investment	<u>15,302,775</u>	<u>15,302,775</u>
Total Other Investments	<u>15,327,678</u>	<u>15,316,238</u>
Total Assets	\$ 19,102,093	\$ 18,690,845
Liabilities And Net Assets		
Liabilities		
Current Liabilities		
Accounts payable	\$ 210,788	15,656

	YTD March 31 1998	YTD March 31 1997
Deferred membership dues	845,530	847,679
Student Fund	0	307
Deferred Revenue—Journal	0	1,610
Dues payable	<u>23,044</u>	<u>39,147</u>
Total Current Liabilities	<u>1,056,318</u>	<u>865,252</u>
Long Term Liabilities		
Accrued pension liability	0	<u>210,388</u>
Total Liabilities	<u>1,056,318</u>	<u>1,075,640</u>
Net Assets		
Unrestricted		
Unrestricted net assets	1,553,228	1,425,541
Net Income	0	155,419
Prior period—PLICO adjustment	500,000	500,000
Increase in unrestricted net assets	<u>198,721</u>	<u>0</u>
Total Unrestricted	<u>2,251,949</u>	<u>2,080,960</u>
Temporarily Restricted		
Suspense	259,581	0
Temp. restrd-C. Leebron Memorial	5,278	5,278
Temp. restrd-Loan and School	91,819	91,819
Temp. restrd—Tort Reform Fund	126,927	126,927
Temp. restrd—M. Johnson Memorial	<u>7,446</u>	<u>7,446</u>
Total Temporarily Restricted	<u>491,051</u>	<u>231,470</u>
Permanently Restricted		
Total Permanently Restricted	<u>15,302,775</u>	<u>15,302,775</u>
Total Net Assets	<u>18,045,775</u>	<u>17,615,205</u>
Total Liabilities and Net Assets	\$19,102,093	18,690,845

Oklahoma State Medical Association Statement of Activities for Three Months Ending March 31 — Support and Revenue

	Actual Mnth of March 1998	% of Mar. Total Gross Revenue	Revised Budget Mnth of Mar. 1998	% of Feb. Revised Budget	YTD Mnth End March 1998	% of YTD Total Gross Revenue	Revised YTD Bgt. Mnth End Mar. 31 1998	% YTD Revised Budget	Act. YTD Mnth End Feb. 28 1997	% YTD Total Gross Rev.
Support & Revenue										
OSMA Membership Dues	86,936	52	86,667	100	260,807	46	260,001	100	260,060	50
Interest Revenue—Other	0	0	8,750	0	18,032	3	26,250	69	27,788	5
Interest - Reserves	0	0	0	0	13,984	2	0	-999	0	0
Unrealized Gains/Losses	0	0	0	0	3,696	1	0	-999	0	0
AMA Commissions	34,562	21	4,167	829	49,252	9	12,501	394	48,841	9
Building Lease	0	0	3,100	0	3,800	1	9,300	41	18,900	4
Directory Sales & Advertising	10,940	7	4,583	239	33,727	6	13,749	245	18,385	4
Computer Label Sales	447	0	667	67	1,603	0	2,001	80	2,480	0
Member Service For-Profit Corp.	20,000	12	1,667	999	20,000	3	5,001	400	0	0
Member Service Council	597	0	1,667	36	12,787	2	5,001	256	540	0
Physician Recovery Program	0	0	0	0	0	0	0	0	125	0
Contract with Subsidiary—PLICO	0	0	28,125	0	84,375	15	84,375	100	84,375	16

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Other Revenue	0	0	167	0	24,675	4	501	999	1,463	0
Total Support & Revenue	<u>153,481</u>	<u>91</u>	<u>139,560</u>	<u>110</u>	<u>526,738</u>	<u>92</u>	<u>418,680</u>	<u>126</u>	<u>462,958</u>	<u>89</u>
Journal Support and Revenue										
Subscription	60	0	325	18	240	0	975	25	350	0
OSMA Dues Allocation	5,000	3	5,000	100	15,000	3	15,000	100	15,000	3
Advertising	25	0	2,083	1	236	0	6,249	4	9,283	2
Total Journal Support & Revenue	5,085	3	7,400	69	15,476	3	22,224	70	24,633	5
Annual Meeting Support and Revenue										
Exhibit Fees	6,670	4	2,500	267	22,810	4	7,500	304	18,603	4
OSMA Dues Allocation	2,500	1	2,500	100	7,500	1	7,500	100	7,500	1
Ticket Sales	525	0	2,083	25	525	0	6,249	8	8,195	2
Total Annual Meet. Support & Rev.	<u>9,695</u>	<u>6</u>	<u>7,083</u>	<u>137</u>	<u>30,835</u>	<u>5</u>	<u>21,249</u>	<u>145</u>	<u>34,298</u>	<u>7</u>
Total Gross Support and Revenue	<u>168,261</u>	<u>100</u>	<u>154,051</u>	<u>100</u>	<u>573,040</u>	<u>100</u>	<u>462,153</u>	<u>124</u>	<u>521,000</u>	<u>100</u>

Oklahoma State Medical Association
Statement of Activities for Three Months Ending March 31 —Services and Expenses

	Actual Mnth of March 1998	% of Mar. Total Gross Revenue	Revised Budget Mnth of Mar. 1998	% of Feb. Revised Budget	YTD Mnth End March 1998	% of YTD Total Gross Revenue	Revised YTD Bgt. Mnth End Mar. 31 1998	% YTD Revised Budget	Act. YTD Mnth End Feb. 28 1997	% YTD Total Gross Rev.
Council & Committee Expenses										
Prof. & Public Relations	730	1	4,417	17	38,319	10	13,251	289	6,067	2
Planning & Development Council	0	0	208	0	203	0	624	32	2,475	1
Medical Services Council	135	0	83	162	135	0	249	54	0	0
Member Services Council	10,036	7	1,667	602	11,585	3	5,001	232	350	0
Public & Mental Health	203	0	125	163	330	0	375	88	88	0
Council on State Legislation	14,054	10	11,000	128	62,636	17	33,000	190	25,853	7
OMPAC	270	0	900	30	2,711	1	2,700	100	0	0
Governmental Activities	2,083	2	3,458	60	4,166	1	10,374	40	7,097	2
Organized Medical Staff	76	0	333	23	76	0	999	8	0	0
Alliance Activities	933	1	833	112	3,483	1	2,499	139	526	0
Student Activities	0	0	833	0	525	0	2,499	21	200	0
Resident Activities	0	0	83	0	0	0	249	0	0	0
Rural Health	191	0	125	153	300	0	375	80	0	0
Young Physician Section	0	0	625	0	0	0	1,875	0	0	0
10% Contingency	10,238	8	2,083	491	10,238	3	6,249	164	0	0
Medical Ethics & Competency	0	0	83	0	0	0	249	0	0	0
International Medical Graduates	0	0	167	0	0	0	501	0	283	0
Total Council & Committee Expenses	38,948	29	27,023	144	134,707	36	81,069	166	42,940	12
OSMA Journal Expenses										
Printing	0	0	5,000	0	6,437	2	15,000	43	19,054	5
Art work	0	0	313	0	1,079	0	939	115	1,836	1
Proofreading	36	0	42	86	36	0	126	29	86	0
Operating	500	0	1,333	38	3,649	1	3,999	91	4,584	1
Total Journal Expenses	536	0	6,688	8	11,201	3	20,064	56	25,559	7
OSMA Annual Meeting Expenses										
Travel	0	0	8	0	0	0	24	0	0	0
Exhibits	0	0	167	0	1,898	1	501	379	81	0
Photo	0	0	125	0	0	0	375	0	0	0
Planning	0	0	8	0	0	0	24	0	0	0
Printing	1,443	1	1,000	144	1,443	0	3,000	48	4,341	1
Supplies	69	0	750	9	69	0	2,250	3	272	0
Speakers	0	0	417	0	0	0	1,251.0	0	0	0

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Entertainment	0	0	167	0	0	0	501	0	800	0
Lunches	0	0	417	0	0	0	1,251	0	0	0
Signs/Security	0	0	100	0	0	0	300	0	0	0
Audio visual	0	0	63	0	0	0	189	0	0	0
Awards/Trophies	0	0	208	0	0	0	624	0	475	0
Hotel/Convention	0	0	2,917	0	0	0	8,751	0	0	0
Flowers	0	0	83	0	0	0	249	0	0	0
Total Annual Meeting Expenses	<u>1,511</u>	<u>1</u>	<u>6,430</u>	<u>24</u>	<u>3,410</u>	<u>1</u>	<u>19,290</u>	<u>18</u>	<u>5,969</u>	<u>2</u>
Total Gross Expenses	<u>134,936</u>	<u>100</u>	<u>149,434</u>	<u>90</u>	<u>374,327</u>	<u>100</u>	<u>448,302</u>	<u>83</u>	<u>366,469</u>	<u>100</u>
Net Income	<u>33,326</u>		<u>4,617</u>	<u>722</u>	<u>198,721</u>		<u>13,851</u>	<u>999</u>	<u>155,419</u>	
Supporting Services										
Salaries	33,267	25	40,000	83	92,734	25	120,000	77	116,250	32
Payroll Taxes	3,070	2	3,750	82	8,076	2	11,250	72	11,611	3
Pension Plan	1,907	1	4,715	40	5,720	2	14,145	40	6,255	2
Retirement Plan Fees	0	0	0	0	0	0	0	0	225	0
Health Insurance	0	0	4,121	0	7,806	2	12,363	63	8,626	2
Staff and Officers	1,577	1	7,083	22	12,502	3	21,249	59	19,542	5
Executive Director Search	0	0	0	0	0	0	0	0	247	0
Disability Insurance	241	0	280	86	670	0	840	80	721	0
Travel	0	0	42	0	89	0	126	71	42	0
Office Supplies	2,815	2	3,333	84	9,288	2	9,999	93	12,247	3
Equipment Repairs and Service	0	0	83	0	0	0	249	0	0	0
Postage	(102)	0	3,333	-3	10,850	3	9,999	100	22,533	6
Telephone	4,882	4	2,083	234	7,327	2	6,249	117	5,590	2
General Insurance	448	0	2,917	15	663	0	8,751	0	12,072	3
Utilities	1,426	1	1,833	70	3,742	1	5,499	68	5,043	1
Services	362	0	417	87	1,384	0	1,251	111	845	0
Building	35	0	1,000	4	2,244	1	3,000	75	3,941	1
Yard Maintenance	486	0	500	97	973	0	1,500	65	1,305	0
Accounting	190	0	1,000	19	7,045	2	3,000	235	7,000	2
Legal	0	0	5,000	0	0	0	15,000	0	1,212	0
Computer	4,263	3	2,917	146	8,555	2	8,751	98	4,960	1
Internet	395	0	1,250	32	740	0	3,750	20	622	0
Computer Upgrade	4,006	3	2,000	200	4,006	1	6,000	67	22,494	6
Dues & Subscription	1,360	1	500	274	2,540	1	1,500	169	1,187	0
Awards & Contributions	0	0	208	0	800	0	624	128	233	0
County Society Dues Commission	5,640	4	2,083	271	5,859	2	6,249	94	20,900	6
AMA Convention	1,688	1	10,928	15	3,726	1	32,784	11	2,964	1
Depreciation Expense	0	0	6,667	0	0	0	20,001	0	0	0
Trustee Fees OSMA Reserves	0	0	250	0	1,601	0	750	213	747	0
Uncollectible Physician										
Recovery Loans	25,900	19	0	-999	25,900	7	0	-999	0	0
Other Operating	<u>75</u>	<u>0</u>	<u>1,000</u>	<u>8</u>	<u>170</u>	<u>0</u>	<u>3,000</u>	<u>6</u>	<u>2,559</u>	<u>1</u>
Total Supporting Services	<u>93,940</u>	<u>70</u>	<u>109,293</u>	<u>86</u>	<u>225,009</u>	<u>60</u>	<u>327,879</u>	<u>69</u>	<u>292,003</u>	<u>80</u>

EDUCATION & RESEARCH FOUNDATION**Midfirst Bank****Jan. 1, 1998 - Mar. 31, 1998**

Checking Account #1801002376 Balance	\$ 21,863
Savings Account #1801002384 Balance	120,313
Total Beginning Balance 1/1/98	\$142,176

Foundation	<u>Revenue</u>	<u>Expenses</u>
Bank Interest Less Charges	\$908	
Physician Recovery Program		
Plico Contribution	125,000	
Dental Assoc. Contribution	3,000	
Osteopathic Assoc. Contribution	<u>6,000</u>	
	134,000	
Director's Contract		21,000
Director's Expenses		300
Assistant Director's Contracts		7,532
Physician Recovery Program Loan		<u>3,000</u>
		31,832
Council on Medical Education		
Orthopaedic & Reconstruction		
Research Foundation	200	
CME Annual Meeting		<u>1,500</u>
		<u>1,500</u>
Total Revenue	<u>135,138</u>	
Total Expenses		<u>33,332</u>
Revenue Over Expenses		<u>\$ 101,806</u>

MEMBER SERVICE FOR-PROFIT CORPORATION**Nations Bank****Jan. 1, 1998 - Mar. 31, 1998**

Checking Account #194743 Balance	\$ 197
Savings Account #194581 Balance	24,706
Total Beginning Balance 1/1/98	\$24,903

	<u>Revenue</u>	<u>Expenses</u>
Revenue:		
Utica Physicians Assoc.	1,000	
C.L. Frates	1,500	
Destinations	12	
Tax Resource	826	
Conomikes	157	
I.C. System	833	
Auto Flex	100	
Long Distance Savers	4	
MNBA	<u>12,500</u>	
	<u>16,932</u>	
Interest less bank charges:	\$114	
Expenses:		
Federal Taxes		\$ 1,563
State Taxes		626
CPA		315
97 Commission Refund/Trav-Con		<u>874</u>
		<u>3,378</u>
Total Revenue	<u>17,046</u>	
Total Expenses		<u>3,378</u>
Revenue Over Expenses		<u>\$ 13,668</u>
1997 After-tax Profit Transferred to OSMA		<u>\$ 20,000</u>

**REPORT OF
OSMA MEMBERSHIP**

Reference Committee I (A-98)
 Subject: Life Membership
 Presented by: Debbie Adams, OSMA
 Membership Coordinator
 Referred to: Reference Committee I

Review of Activities

The OSMA Board of Trustees has granted life membership to the following physicians since the last House of Delegates meeting in April of 1997:

April 24, 1997 Board Meeting

Richard F. Barbee, MD
 Ann K. Kent, MD
 Delbert McGinnis, MD
 Irwin McLendon, MD
 Jesse F. Richardson, MD
 Layton Sutton, MD

July 13, 1997 Board Meeting

Charles R. Gibson, MD

Glen D. Hallum, MD
 John W. Marks, MD

October 19, 1997 Board Meeting

H. Thompson Avey, MD
 William Claude Click, MD
 Thomas C. Finn, Jr., MD
 Charles L. Freede, MD
 Allen E. Greer, MD
 Elwood Herndon, MD
 William T. Holland, MD
 Mary Duffy Honick, MD
 Frank H. Howard, MD
 Howard B. Keith, MD

January 18, 1998 Board Meeting

Reagan H. Bradford, MD
 Melvyn L. Brill, MD
 Richard A. Ellis, MD
 Edward H. Fite, Jr., MD
 John H. Gardner, MD
 Arthur E. Hale, Jr., MD
 William L. Hughes, MD
 Joseph James, MD
 Betty J. McClellan, MD

James W. McDoniel, MD
 J. E. Pyeate, MD
 Georgene M. Schmeckpeper, MD
 Jack M. Stephenson, MD
 Harold L. Stratton, Sr., MD
 Cranfill K. Wisdom, MD

As stated in Chapter. Section 2.031 of the OSMA Constitution and Bylaws, these physicians must be approved for life membership by the House of Delegates at the annual meeting.

**REPORT OF THE
OKLAHOMA AMA DELEGATION**

Subject: AMA Delegation Report
 Presented by: Jay A. Gregory, MD, Chairman
 Referred to: Reference Committee I

Introduction

The Oklahoma State Medical Association (OSMA) American Medical Association

(AMA) Delegation attended the June Annual Meeting in Chicago and the December Interim Meeting in Dallas, Texas. The Oklahoma Delegation consists of 16 Delegates and Alternates. David M. Selby, OSMA President also attended both meetings.

Oklahoma has joined with the states of Missouri, Kansas, and Arkansas to form the Heart of America Caucus within the House of Delegates. This gives the Caucus 22 votes on the floor of the House.

Members of the Delegation traveled to County Medical Societies to update OSMA members on the actions and issues of the AMA and to listen to feedback on items they would like to see the AMA Delegation present at the meetings.

Annual Meeting

The OSMA AMA Delegation attended the AMA Annual Meeting, June 21-26, 1997 in Chicago, Illinois. 475 physician-members of the House convened on Sunday, June 22 through Thursday, June 26, 1997. Below is a listing of the resolutions submitted and the action taken:

Adopted as Amended:

- Resolution 229: Advance Directives for each Nursing Home Resident
- Resolution 430: Insurance Coverage for Immunizations

Title Change:

- Resolution 512: Reducing Unintended Pregnancy through adequate funding of Family Planning Services Title change: *Reducing Unintended Pregnancy*

Policy Reaffirmed:

- Resolution 814: Practice Expenses
- Candidates for the various councils were interviewed on Saturday along with Reference Sub Committee meetings, Board Interviews and the Oklahoma Delegation Caucus. Sunday through Thursday mornings the Delegation met with the Heart of America Caucus to go over the business of the House. HB 1122 (partial birth abortion) was perhaps the biggest ticket at the Annual meeting. Congressman Tom Coburn, MD came to testify before the Reference Committee.

Interim Meeting:

The American Medical Association House of Delegates convened in December for the Interim Meeting. The House convened from Sunday, December 7, through Wednesday, December 10, to discuss and vote on a wide range of policy resolutions. More than 150 resolutions and 70 reports were considered.

The Oklahoma Delegation, consisting of 15 delegates and alternates, including David M. Selby, MD, President, submitted ten resolutions to be presented before the House. Below is a listing of those resolutions and the actions taken:

Adopted as Amended:

- Evaluation and Management: Help for Members
- Evaluation and Management: Halting Implementation and Enforcement
- Professional Courtesy
- Managed Medicaid
- Medical Necessity Coding
- Fraud and Abuse

Policy Reaffirmed:

- Universal Access to Medical Care
- "Without Cause" Discharge Provisions
- Practice Expense

Not Adopted:

- CME Category 2

In addition to the House's deliberation and action on resolutions, special presentations and reports were made on several new initiatives the AMA has launched on behalf of America's patients and physicians. Among them: National Patient Safety Foundation at the AMA; American Medical Accreditation Program (AMAP); AMA Division of Representation; and AMA World Wide Web site. Mary Anne McCaffree, MD, was appointed to serve on the Sunbeam Ad Hoc Committee. This Committee will report to the House at the 1998 Annual meeting.

The AMAP program received the continued go ahead from the House of Delegates, on the condition that AMAP leaders work to improve communication and collaboration with state, county, and specialty medical societies. The recommendation also called for AMAP to "fully and completely review all current efforts" and

to smooth its interactions with the Federation. Gary Krieger, MD, vice chair of AMAP's governing body, offered delegates an apology for the program's missteps. "We have heard this house loud and clear," he said.

Federation Coordination Team

The Federation Coordination Team (FCT) is continuing its activities with Jay A. Gregory, MD, making multiple presentations and meetings and they are entering into a new era of collaboration and cooperation projects throughout the Federation.

Conclusion

I would like to take this opportunity to say farewell to Sara R. DePersio, MD who will not be representing the OSMA as an AMA Delegate or Alternate this year. Dr. DePersio has decided to "retire" from the Delegation to pursue other interests. Her influence in the AMA Public Health Council has been tremendous and will be difficult to replace. The Delegation will miss her contributions to the various councils and committees she represented and wishes her well in future endeavors.

The 1998 meetings are scheduled for June 13-18, in Chicago and December 5-9, in Hawaii. The AMA Delegation will forward resolutions from the OSMA Annual Meeting to the June Annual Meeting. Delegates, Norman Dunitz, MD, and William Hall, MD, will be serving on Reference Committees at the AMA Annual Meeting in June.

Respectfully submitted:

Jay A. Gregory, Chairman
Jack Beller, MD
William Bernhardt, MD
Sara DePersio, MD
Norman Dunitz, MD
William H. Hall, MD
David L. Harper, MD
Carl T. Hook, MD
Perry Lambird, MD
Patrick Lester, MD
Mary Anne McCaffree, MD
Mukesh Parekh, MD
W. Frank Phelps, MD
Greg Ratliff, MD
Clarence Robison, Jr., MD
Gary Strebel, MD

REFERENCE COMMITTEE II



Executive Committee: In front, from left are Bruce L. Storms, David M. Selby, Mary Anne McCaffree, Boyd O. Whitlock, Carol Blackwell Imes; in back, from left are David S. Russell, Robert J. Weedn and John R. Bozalis (not pictured is Wallace C. Hooser).

REPORT OF THE COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS

(A-98)

Subject: Annual Report

Presented by: Timothy A. Walker, MD,
Chairman

Referred to: Reference Committee II

Introduction

The Council on Professional and Public Relations is undergoing changes this year, with proposed Bylaws changes poised to rename it and change its focus to more directly oversee the Association's written and electronic communications. Accordingly the Council's activities have differed somewhat this year, with the biggest changes being the incorporation of the Journal's Editorial Board as a part of the Council and the appointment of a Computer Subcommittee to evaluate the Association's position with regard to current and future computer equipment and needs.

Activities

The Council met March 12, 1998, at OSMA headquarters. The following is the report of that meeting:

Chairman Tim A. Walker, MD, convened the meeting at 6:30 p.m. in the Board Room at OSMA Headquarters. Attending were:

Council Members: Timothy A. Walker, MD, Chair; David A. Russell, MD; J. Michael Pontious, MD; James Michael McGee, MD; Roger Sheldon, MD; Ruth H. Oneson, MD; Robert L. Scott, MD; David M. Selby, MD; Andrew C. Gin, MD; Roger E. Sheldon, MD; Ray V. McIntyre, MD; Clifford G. Wlodaver, MD; David Kendrick, MS III

Guests: Mary Myrick, PR consultant from Public Strategies

OSMA Staff: Brian Foy, Kathy Musson, Susan Records

Dr. McIntyre began the meeting by announcing the results of balloting for Jour-

nal awards which had been completed and tabulated prior to the meeting.

The next two Leaders in Medicine articles will feature (1) Edward N. Brandt, Jr., MD and (2) M. Joe Crosthwait, MD.

The Best Cover Photo Award for 1997 will go to William S. Harrison, MD, Chickasha, for his photo of a magnolia blossom, which appeared on the cover of the May/June 1997 Journal.

The Mark R. Johnson Excellence in Medical Writing Award will go to Christian C. Sieck, MD, Enid, for his paper entitled "Vaginal Birth After Cesarean Section: A Comparison of Rural and Metropolitan Rates in Oklahoma." The article was published in the November/December 1997 Journal.

The Charlotte S. Leebron Memorial Trust Award will go to authors Eliezer Katz, MD; Charles M. Miller, MD; Bakr Nour, MD; Myron E. Schwartz, MD; Anthony Sebastian, MD; and Sukru Emre, MD, for their article entitled "The First In Situ Split of a Liver in the USA Performed by Two Geographically Distant Transplant Centers-Enhancing, Sharing, and Expanding the Cadaveric Liver Organ Pool." The paper was published in the November/December 1997 Journal.

The next topic was whether or not to raise Journal advertising rates (effective date January 1, 1999). **Motion was made, seconded, and approved that the Journal's advertising rates remain unchanged for 1999.**

Dr. McIntyre noted that the flow of manuscripts being submitted to the Journal for publication has been increasing, to the extent that the Board of Trustees might wish to consider returning to a monthly publication schedule. **Motion was made, seconded, and carried that the Communications Council recommend to the OSMA Board of Trustees a return to monthly publication of the Journal.**

Discussion then turned to the Annual Meeting Proceedings and whether it was worthwhile continuing to publish them in full in the Journal. It was noted that currently this Journal publication serves as the only permanent compendium and archive for the association. **Motion was made, seconded, and approved to continue publishing the complete Annual Meeting Proceedings in the Journal each year.**

Dr. McIntyre explained a situation wherein the *Journal's* managing editor received a letter questioning whether a paper published in the *Journal* in January 1995 had possibly been plagiarized from another paper published that same year by some doctors at the University of Rochester Medical Center. Dr. McIntyre pointed out there were many similarities as well as differences between the two papers. Managing Editor Susan Records responded to the letter of inquiry with a copy of the cover letter that came with the manuscript, which showed the date received and the author's signed statement that the paper was original and was being submitted solely to the *Journal*. The letter also stated that we no longer knew the whereabouts of the authors and asked to be informed of any progress made in the investigation of the situation.

There was a brief discussion to clarify that upcoming bylaws changes would change what has been known as the Council on Professional and Public Relations to the Council on Public Relations, concentrating on issues outside the OSMA. Dr. Mary Anne McCaffree will appoint a chair of that committee after she becomes OSMA president.

At the same time, this council (Public and Public Relations) which for a year has been known variously as the Publications, Communications, and Public Relations Council or the Publications and Public Relations Council, will become known as the Communications Council. It will continue to oversee the written and electronic communications interests within the association, with Dr. Tim Walker as the chair.

At 7:20 p.m. the Editorial Board portion of the meeting adjourned and Dr. Walker gave an overview of the discussion during the afternoon meeting of the Computer Subcommittee. The minutes from that meeting are attached as a part of these minutes.

There was discussion of what should go on the OSMA website and the fact that it was this council's responsibility to decide on a strategy. Dr. Gin noted the OSMA has neither the budget nor the personnel at this time to staff a website. Dr. Walker wondered if a website was worth maintaining, or should the resources be dedicated to a massive database project instead.

Regarding the maintenance of a website, the discussion boiled down to one of two viewpoints: (1) If you build it, they will come. (2) If you build it wrong, it will sink.

It was suggested that CME could be the carrot that would get physicians to visit the website, or possibly e-mail links to other members with e-mail addresses. In any case, it was generally agreed that a 2-5 year project and commitment of budget and resources would be necessary to make such an endeavor viable.

Motion was made, seconded, and approved that the website changes/additions requested by Dr. Sheldon on behalf of CME be made.

Kathy Musson went over a list of projects so far accomplished by the public relations firm Public Strategies, which was hired by the association at the beginning of the legislative session to work on our behalf until the end of the session: Among them were preparing a document entitled "Laser Surgery Strategic Plan," drafting a direct mail piece to be mailed to former PAC contributors, creating a new logo for OMPAC, preparing and handling OSMA's reply to the "Disciplined Doctors" story promulgated by Oklahoma City's KWTU, producing a "Medical Minute" segment as part of the news programming on the Clear Channel Network, establishing an OSMA account with Broadcast News so that we may better monitor the broadcast coverage of physicians and the laser surgery issue, generating a press release about new OSMA Executive Director Brian Foy, contacting the state's health reporters about setting up introductory meetings, helping with Annual Meeting plans, and researching ongoing medical coverage which occurs in *The Daily Oklahoman* and *The Tulsa World*.

Meeting was adjourned at 8:30 p.m.

Respectfully Submitted,
Timothy A. Walker, MD, Chairman
Roger E. Sheldon, MD, Vice-Chairman
David M. Selby, MD
Robert F. Finnegan, MD
Charles A. Howard, MD
M. Dewayne Andrews, MD
Ray V. McIntyre, MD
Andrew C. Gin, MD
John C. Leatherman, MD
James Michael McGee, MD

J. Michael Pontious, MD
Clifford G. Wlodaver, MD
Robert L. Scott, MD
Ruth H. Oneson, MD
David Kendrick, MS III
Susan Records, OSMA Staff

■ REPORT OF THE COUNCIL ON PUBLIC AND MENTAL HEALTH

Reference Committee II (A-98)

Subject: Annual Report

Presented by: Robert M. Mahaffey, MD
Chair

Referred to: Reference Committee II

Introduction

It is the goal of the Council to represent the Association in all matters related to public and mental health, including but not limited to maintaining effective liaison with public and private organizations engaged in activities of this type, and the sponsorship of programs for the betterment of public and mental health.

Goals:

1. Through Ad Hoc Committee on Home Health Care, finish reports on home health care in Oklahoma and work with appropriate agencies to implement recommendations.
2. Assist State Health Department in getting Child Health Primary Care Assessment surveys completed by OSMA primary health care providers.
3. Support Attorney General Drew Edmondson in the suit against the tobacco industry.
4. Urge the OSMA Board of Directors to approve joining with the AMA in submitting a friend of court brief to US Supreme Court concerning physician assisted suicide and joining the coalition for quality end of life care.
5. Support Tobacco Free Coalition and advocate and support legislation that restricts tobacco advertising, especially that targeted toward young people.
6. Support activities of various council sub-committees: Maternal Mortality, Perinatal Task Force, Sports Medicine Committee, Liaison Committee with Pharmaceutical Association, Environment Committee, Internal education programs.

Public and Mental Health

(continued)

7. Work closely with Oklahoma State Department of Health and the Mental Health Department.

8. Support legislative committee in seeking funding for prohibiting sale of non-human primates.

*9. Support funding for the Family Planning Clinic Program.

*10. Work closely with the Oklahoma State Health Department to promote all areas of Oklahoma State Immunization Information System (OSIIS) to increase providers 30% by the year 2000.

*11. Implement all aspects of the Physician Recognition Program (asking Oklahoma State Health Department to change name to Physician Achievement Award)

*12. Work with the Council on Professional and Public Relations to activate a Speaker's Bureau for the issues on Women's Health. Dr. Mukesh Parekh will be speaker for issues on Women's Health.

*13. Support Dr. Gordon H. Deckert as the point person for the OSMA Council on Public and Mental Health on the issues of Men's Health.

*14. Support programs that encourage abstinence and address information about HIV/STD's with an emphasis on the consistent and correct use of condoms and emphasize condom usage for people at risk of contracting HIV and other sexually transmitted diseases.

**Denote's 1998 Goals*

Review of Activities:

Unintended Pregnancy: The Council is pleased to report that Resolution #8, (Reducing Unintended Pregnancy through Adequate Funding of Family Planning Services), was adopted by the AMA as Resolution #512, Adopted as Amended with change in title. The Council continues to work with Dr. Frank Wilson, Chair, Oklahoma College of Obstetrics and Gynecology, in Domestic Abuse and Unintended Pregnancies.

Immunizations: The OSMA passed Resolution #9, (Reporting Immunizations to the Oklahoma State Immunization Information System), (OSIIS). The

Council has supported the Oklahoma State Department of Health in education of providers through posters, newsletters and letters of support to the Oklahoma Foundation for Medical Quality. The Council made recommendations for an updated immunization card to include the following: Adult Immunizations, date and dose of next immunization due, design of card, and Hepatitis A vaccine. In regards to Late Resolution #27 (Insurance Coverage for Immunization) the Council is pleased to report the AMA adopted as amended Resolution #430. The Council has supported the Oklahoma State Department of Health in education of providers through posters, newsletters and letters of support to the Oklahoma Foundation for Medical Quality. To further address immunizations the Council has submitted Resolution #2, School and Day Care Immunization Law Changes.

Breastfeeding: The Council is pleased to report the OSMA passed Resolution #10 (Support of Breast-feeding). Malinda Webb, MD, a pediatrician in Stillwater, Oklahoma and Oklahoma Coordinator of the Breastfeeding Task Force, has been working closely with the Council in distribution of her program, "Loving Support." Information on "Loving Support" is available at the OSMA Information Booth at the 1998 Annual Meeting.

Women's Health: The Council is pleased to report that the OSMA passed Resolution #12 (Women's Health). The Council is working closely with Dr. Frank Wilson, Chair, Oklahoma College of Obstetrics and Gynecology in areas of Women's Health. Dr. Mukesh Parekh was elected as spokesperson for Women's Health Issues. Prescription for Women's Health has been distributed throughout physician offices and the OSMA Newsletter and Journal.

Men's Health: The OSMA passed Resolution #13 (Men's Health) and is pleased to announce Dr. Gordon H. Deckert will be the point person for Men's Health.

HIV/STD: The OSMA passed Resolution #17 (Reducing HIV/STD Transmission through Consistent and Correct Condom Usage). The Council continues to be concerned and is working with the Oklahoma State Department of Health in the education of HIV/AIDS. Mark Turner, MPH, Director, Epidemiology Division presented a slide presentation, "The Epidemiology of HIV Disease in Oklahoma", copies were distributed throughout the Council. To further address the problem of HIV/AIDS, the Council is recommending Resolution #25 relating to Sterile Needles and Syringes.

Tobacco: Resolution #19 (Tobacco Advertising) was passed by the OSMA. The Advertising of Tobacco in Oklahoma has significantly dropped in Oklahoma in regards to advertising on Road Signs and Telecommunication. In regards to tobacco legislation, the Council recently sent letters to all State Congressman regarding a letter sent to House Speaker Newt Gingrich by the Advisory Committee on Tobacco Policy and Public Health, co-chaired by C. Everett Koop, MD and David A. Kessler, MD. Our own Dr. D. Robert McCaffree, MD was a co-signer of this letter.

Home Health Care: Resolution #20 (Home Health Care) was passed by the OSMA. The Council and the President of the Home Care Association, William Neal, RN, continue to be concerned with the issues of Home Health and educating our members of ongoing changes in Home Health. Distribution of A Physician's Reference to Home Care are available through the Oklahoma Association for Home Care. Mr. Neal is available to speak at County section meetings.

Rabies Awareness: The OSMA passed Resolution #22 (Rabies Public Awareness Program). The Council and the Oklahoma Veterinary Association are working together to educate the public by information published by the Oklahoma Veterinary Association. Rabies Brochures will be available for distribution at the 1998 OSMA Annual Meeting Information Booth. Additional copies are available

from the Oklahoma Veterinary Association.

The OSMA Perinatal Task Force chaired by Mary Anne McCaffree, MD, met on July 29, 1997. The main topics of the meeting were new regulations for newborn screening for PKU, Thyroid. Sick-cell. To further address the issue of infants born with hearing loss, the Council is recommending Resolution # 26, Universal Newborn Hearing Screening.

The Council supports efforts of the Oklahoma State Department of Health(OSDH), March of Dimes and the Oklahoma Pharmacists Association through a Statewide Campaign, "Folic Acid- Make it a Habit". The OSMA has helped distribution through publication in the OSMA Newsletter and Journal. Folic Acid Campaign information is available at the 1998 OSMA Annual Meeting information booth.

Letters of support by the Council include: M.A.P.S. Project for the Prevention of Stroke, Diabetes Control, Project for Skin Cancer and the Oklahoma Foundation for Medical Quality Immunization Improvement Program and the National Association of Physicians for the Environment.

Conclusion:

The Council on Public and Mental Health is dedicated to provide the citizens of Oklahoma, as well as OSMA members, with timely information regarding the medical aspects of public and mental health and to oversee programs in these areas.

Respectfully submitted,
Robert M. Mahaffey, MD, Chair
Chester L. Bynum, MD
Edgar M. Cleaver, MD
James M. Crutcher, MD
Gordon H. Deckert, MD
Sara R. DePersio, MD
Jodie L. Edge, MD
Stuart D. Hoff, MD
Jerry R. Hordinsky, MD
Berth M. Levy, MD
Mary Anne McCaffree, MD
Mukesh T. Parekh, MD

George W. Prothro, MD
Edd D. Rhoades, Jr., MD
Joseph B. Ruffin, MD
Bruce L. Storms, MD
Edward D. Tyson, MD

REPORT OF THE MEDICAL STUDENTS SECTION

Reference Committee II (A-98)

Subject: Annual Report

Presented by: Betsy Jett, Chair, Medical Students Section

Referred to: Reference Committee II

Introduction

The OSMA Medical Student Section consists of 272 members from the OU College of Medicine at the Health Sciences Center and the OU College of Medicine in Tulsa. The OSMA Medical Student Section is the largest extracurricular group on the Oklahoma City campus. The purpose of the Section is to introduce students to organized medicine and the issues that affect the practice of medicine.

Review of Activities

The Section continues to sponsor a welcoming picnic for first year medical students and their families. This year, the event was moved to the Omniplex and was attended by over 300 students, faculty members, and guests.

The Section continues to sponsor a series of highly popular Roundtable Luncheons at the Faculty House. These luncheons provide students with the opportunity to discuss topics not covered in the traditional medical school curriculum in a small group setting with an expert in that field. Topics this year included legal, ethical, and regulatory issues.

OSMA medical student members attend Council, Committee, and House of Delegate meetings.

Oklahoma medical students from both campuses continue to represent our state well at national and sectional meetings of the American Medical Association of the Medical Student Section. In addition, this year one student from each campus attended the

AMA Leadership Conference in Washington, DC.

The Medical Student Section hosted the 1998 AMA-MSS Section III meeting at the Medallion Hotel in Oklahoma City. Students from Kansas, Texas, Arkansas, Louisiana, Mississippi, and Oklahoma attended lectures on topics ranging from the future of medical education to Oklahoma City's response to the downtown bombing.

This year the Section also sponsored a minority recruitment seminar that provided high school students with the opportunity to meet with minority physicians to learn more about a career in medicine. In addition, the Section is hosting a residency fair this spring. Nearly 1200 residency programs from around the country were invited to come and introduce students to their program.

Respectfully submitted,
Betsy Jett, Chair

REPORT OF THE ORGANIZED MEDICAL STAFF SECTION

Reference Committee II (A-98)

Subject: Annual Report

Presented by: William O. Coleman, MD, Chair

Referred to: Reference Committee II

Introduction

The OSMA Organized Medical Staff Section was originally called the Hospital Medical Staff Section (HMSS). In June of 1995, the OSMA-HMSS was changed to the Organized Medical Staff Section (OMSS) and it now credentials representatives from hospital medical staffs, as well as other organized medical staffs from managed care groups.

The purpose of the Organized Medical Staff Section is to provide a forum for addressing common issues between physicians and organized medical staffs throughout Oklahoma. The OSMA-OMSS maintains communication, develops policy recommendations, and establishes and maintains relations with federal and state government entities having statutory or regulatory jurisdiction

Organized Medical Staff Section (continued)



James Funnell, John McIntyre, Mrs. Teresa Wight (President McCaffree's mother) and Catherine McIntyre visit at the Inaugural Banquet.

affecting organized medical staffs. The Section communicates its activities directly to the Board of Trustees and House of Delegates, as well as to the AMA-OMSS.

Review of Activities

Throughout the 1997-1998 association year, William O. Coleman, MD, participated in AMA OMSS State Chairman meetings, as well as carried the views of the OSMA-OMSS to the annual and interim meetings of the AMA.

A meeting of the OSMA-OMSS was held on Sunday, March 8, 1998. The following actions were taken:

- Michael J. Schwartz, MD, was elected as the Organized Medical Staff Section Delegate to the the OSMA House of Delegates Annual Meeting.
- William O. Coleman, MD, will continue as Chairman of the OMSS; Clarence Robison, Jr, MD, will serve as Vice-Chair of the OMSS, and David E. Fisher, MD, will serve as Secretary/Treasurer.
- William O. Coleman, MD, reported regarding his trip to the AMA Interim Meeting held in December of 1997. During the interim meeting, the AMA presented an educational seminar on fraud and abuse. The OSMA-OMSS has made a recommendation for the OSMA to hold a similar educational seminar for OSMA members. A program is currently being considered for presentation in May or June of 1998 by the OSMA Council on Member Services.

- The Section was advised that the Council on Medical Services is in the process of obtaining the information to prepare the survey of Oklahoma Health plans in response to Late Resolution #24 (A-97) presented by the OMSS.

- It was reported the Council on Medical Services is continuing to collect the "Hassle Factor Logs" and will be compiling that information for presentation as soon as possible. A new HMO Medical Directors Ad Hoc Committee has also been formed under the direction of the Council on Medical Services to discuss legislative issues, treatment initiatives, and conflict issues. It was discussed that perhaps prototype information on forming PHOs should be formulated.

- At the 1997 AMA Annual Meeting the AMA-OMSS adopted Substitute Resolution A12, "Fiduciary Duty of an MSO on Behalf of a Physician Contractee." Substitute Resolution A12 asked that the AMA-OMSS study the legal duties and responsibilities that flow from management services contracts with individual physicians and physician groups. The Governing Council of the AMA-OMSS recently concluded that:

1. Physician relationships with MSOs can take the form of a simple contract, but depending on the contract language a fiduciary duty to the physician may have been created – "the highest duty imposed by law."
2. If an agent/principal relationship is created with the MSO, the physician must be aware of the MSO's fiduciary duty and be prepared to take all appropriate action if it fails to discharge its obligations to the physician.

- A letter was sent to the Health Care Financing Administration (HCFA) from David M. Selby, MD, Jack J. Beller, MD, and William O. Coleman, MD, expressing OSMA opposition to the proposed Medicare Hospital Conditions of Participation changes. In essence, HCFA is trying to give all the policy and bylaws changes responsibility to the hospitals, rather than getting this input from the

medical staff.

- "Restructuring the Medical Staff" policies were discussed which appear to be rather inappropriate and unfair. There is a great need for the OSMA to have "in house" legal counsel readily available to assist in addressing these type of issues and others.
- There was discussion about supporting Dr. Coleman to run as Alternate Delegate to the AMA OMSS. A motion was made, seconded, and passed to support William O. Coleman, MD, OSMA OMSS Chair, to run as an Alternate Delegate to the AMA-OMSS in 1998. However, since the meeting of the OMSS on March 8, 1998, Dr. Coleman has decided not to run for the position.

Goals of the OSMA-OMSS

- To provide a forum for representatives of hospital medical staffs and managed care company medical staffs to discuss common issues and concerns.
- To increase awareness of and communicate issues affecting physicians representing hospital medical staffs and managed care company medical staffs.
- To increase participation (and membership) in the Federation of Medicine – both at the state and national levels.
- To provide direct access in to policy-making bodies of the OSMA and the AMA.
- To assist in the maintenance of self-governing medical staffs.
- To assist in understanding and/or development of Physician Hospital Organizations (PHOs) and other ventures.
- To assist in the solution of medical staff legal problems through OSMA and the AMA legal staff.

Recommendation

Due to the increasing need by physicians for legal representation, particularly in regard to issues physicians face in dealing with managed care, etc., it is the recommendation of this Council that the OSMA pursue the establishment of an "in house" legal counsel position, either on a part time or full time basis, to address and advise the OSMA on medical-legal issues. *Recommendation from the House of Delegates regarding in house legal counsel is to be referred to the OSMA Board of Trustees for further consideration.*

Conclusion

The OSMA-OMSS continues to expand its membership as concerns and issues of the day are debated. Your OMSS continues to participate at the national level as more and more Oklahoma organized medical staffs are sending delegates to both the AMA and OSMA Section meetings. The OSMA-OMSS will work with the other sections of the OSMA, particularly the Young Physicians Section, and caucus together at both the state and AMA section meetings.

The Organized Medical Staff Section will hold a caucus meeting on Thursday, April 23, 1998, at 5:30 pm at the Oklahoma City Marriott. All Section members and unrecognized Section members are encouraged to attend.

Respectfully submitted,
William O. Coleman, MD, Chair
Clarence Robison, JR, MD, Vice-Chair
Joel W. Anderson, MD
M. Dewayne Andrews, MD
Alan E. Aycok, MD
William G. Bernhardt, MD
Kenneth P. Coffey, MD
R. Timothy Coussons, MD
Jerome M. Dilling JR, MD
Thomas A. Dixon, MD
Gilbert Edward Emde, MD
David E. Fisher, MD,
Michael W. Goddard, MD
Joseph L. Godfrey, MD
Robert Claude Gose, MD
Ronald L. Hill, MD
Wm. David Holloway, MD
Charles N. Howard, JR, MD
Nick Knutson, MD
Charles Lee Lackey, MD
Gordon Dennis Lantz, MD
James R. Leach, MD
John C. Leatherman, MD
Ronald D. Legako, MD
Patrick D. Lester, MD
Joseph P. Moore, MD
Kenneth A. Muckala, MD
John R. Oglesbee, MD
C. Mark Palmer, MD
Mukesh T. Parekh, MD
John R. Perkins, MD
J. Michael Pontious, MD
Joe L. Potter, MD
Joseph D. Powers, MD
Jerry L. Rhodes, MD

David Russell, MD
Michael E. Sandlin, MD
Olaseinde Sawyerr, MD
Michael J. Schwartz, MD
M. Boyd Shook, MD
Michael R. Talley, MD
Jane M. Thomason, MD
John W. Tipton, MD
Robert J. Weedn, MD
Peggy J. Wisdom, MD
Toni Farrar, OSMA Staff

REPORT OF THE YOUNG PHYSICIANS SECTION

Reference Committee I (A-98)

Subject: Annual Report

Presented by: Michael D. Hartwig, MD,
Chair

Referred to: Reference Committee II

Introduction

In 1986, the American Medical Association created the AMA-Young Physicians Section (AMA-YPS). Similarly, in May 1987, the Oklahoma State Medical Association created the OSMA Young Physicians Section (OSMA-YPS). Since its inception in 1987, the Section continues to evolve and has been represented by many capable physicians.

To be identified as a member of the OSMA-YPS and the AMA-YPS, a physician must be either under the age of forty (40) or have been in practice less than five (5) years.

Review of Activities

Michael D. Hartwig, MD, is presently serving as Chair of the Section, with Matthew J. Britt, MD, is serving as Vice-Chair. The OSMA-YPS continues to participate in the American Medical Association Young Physicians Section. Dr. Stephen Lester represented the OSMA-YPS as delegate to the AMA Annual YPS Meeting in June 1997. Michael D. Hartwig, MD, and Rochelle E. Ablah, MD, represented the OSMA-YPS as delegate and alternate delegate, respectively, to the AMA Interim YPS Meeting in December of 1997.

The young physicians attending the AMA meeting found it to be a very

valuable educational experience, particularly the observance of how physicians, as a group, discuss, debate, and approve policy. The young physicians must definitely go through a learning curve to become comfortable and effective in this organizational group. While attending the Interim Meeting in Dallas, Dr. Hartwig also attended the Organized Medical Staff Section Caucus and he found it most interesting to hear how the different views of physicians were presented and how they approached policy changes.

The OSMA-YPS is co-sponsoring a Member Services Practice Management Workshop in conjunction with this year's Annual Meeting entitled, "Making the Right Choices." Immediately following the workshop, Jay A. Gregory, MD, Chair of the Federation Coordination Team, will hold an open forum, regarding the FCT's activities and answer any questions. On Thursday evening there will also be a reception for the OSMA-YPS to give the section an opportunity to network with their peers and colleagues to discuss issues important to them as young physicians.

The following goals were established during the 1997-98 Association year for the OSMA Young Physicians Section:

Goals

Short Term

1. To clearly identify the young physician members in the OSMA and establish geographic "hubs" for support, encouragement, and suggestions for its members. At the current time there are approximately 900 young physicians who are members of the OSMA, which make up approximately 20% of the total membership.
2. Present a survey to the young physician members of the OSMA to identify their needs, wants, and goals for the development of programs to assist them in their practices. Some areas of interest may include: setting up a new practice, contract evaluation, financial planning, working in a managed care system, etc.

Young Physicians Section

(continued)

Long Term

Increase the recruitment efforts and retention of young physicians as members and future leaders of the OSMA, and encourage young physicians to be active participants in the activities, councils, and committees of the OSMA.

Recommendation

It is recommended that a survey be presented to the young physician members of the OSMA to better identify their needs, wants, and goals for the development of programs to assist them in their practices.

Conclusion

We have enjoyed representing the OSMA Young Physicians Section during the past year. On behalf of the Section, we would like to urge all physicians in practice who are under the age of forty (40) or who have been in practice less than five (5) years to join us in making the OSMA Young Physicians Section stronger in the years ahead.

Respectfully submitted,
Michael D. Hartwig, MD, Chair
Matthew J. Britt, MD, Vice-Chair

■ REPORT OF THE OKLAHOMA CENTRALIZED VERIFICATION ORGANIZATION

Subject: Annual Report
Presented by: Michelle Seba, CMSC,
program Manager, OCVO
Referred to: Reference Committee II

The signed agreement and start-up fees have now been received from Prudential healthcare. Their client base for the centralized recredentialing program is 2,080. This provides considerable cross-over for the reappointment program in conjunction with the BlueCross and BlueLines statewide providers. OCVO is contracted with 57 healthcare organizations, 37 of which participate in the centralized reappointment program. A request for proposal from Community-Care HMO has been submitted. The focus is on recredentialing, however, assistance with initials may also be included. This statewide organization has approximately 7,000 providers.

PROklahoma has discontinued the recredentialing program for the present. Adjustments have been made to their contract and it is unknown at this time whether, or how soon, there will be additional initial applications.

The reappointment program is into its second cycle, with timing and staffing being crucial from this point forward. Additional personnel are being added to ensure this requirement is met.

REFERENCE COMMITTEE III



Some of the Trustees took time for a photo. In front, from left are Carl Critchfield, David S. Russell, Rebecca Goen Tisdale, Jay E. Leemaster, David M. Nierenberg; in back, from left are Kenneth N. Vermette, Richard B. Winters, John C. Leatherman, Mark C. Johnson and Thomas Tryon.

REPORT OF THE COUNCIL ON GOVERNMENT ACTIVITIES

Reference Committee III (A-98)
Presented by: Richard J. Boatsman, MD,
Chair
Referred to: Reference Committee III

Introduction

The Council shall review federal legislation and regulation of concern to the medical profession or the public health, and shall initiate activities or undertake appropriate responses on matters of priority interest. It shall also establish and maintain relations with federal government entities having statutory or regulatory jurisdiction affecting the medical profession, the delivery of health care, or the public health. In cooperation with other OSMA councils and committees, it shall develop policy recommendations for consideration by the Board of Trustees and it shall prepare testimony and otherwise conduct the federal legislative program of the Association.

Review of Activities

With the second session of the 105th Congress underway, the Council has communicated with Oklahoma's Congressional Delegation and expressed its desire to continue working on issues which affect the practice of medicine and the health and well-being of the citizens of Oklahoma. The following are the highest two priority items:

1. "Patient Access to Responsible Care Act" (PARCA)

Last year the OSMA urged Oklahoma's Congressmen to consider our comments on the President's Medicare Reform package, and most of our concerns were resolved. The "Fairness in Managed Care Act," HB 1416, which was signed into law in Oklahoma last May, encompassed major reform initiatives to protect both doctors and patients involved in managed care plans. As a result, the OSMA supports federal legislation that will assure similar protections for Medicare and Medicaid patients. Initially, the OSMA supported parts

of the PARCA bill which were similar to Oklahoma's statute; however, recently there have been some additional requirements added, such as an "any willing provider" provision. As a result, we are urging the Oklahoma delegation to support a more moderate patient advocacy bill which better parallels Oklahoma's Fairness in Managed Care Act and is consistent with concerns expressed by the AMA.

2. Private Contracting

The Balanced Budget Act of 1997 included a provision which disallows physicians from participating in Medicare for two years if they contract privately with a Medicare patient for a Medicare-covered service. The OSMA supports the elimination of this provision through the passage of S.1194 (Kyl, R-AZ) and H.R. 2497 (Archer, R-TX and Thomas, R-CA) which would permit Medicare patients to pursue contracts with physicians and other practitioners more freely. This legislation would recognize that physicians and their patients should not be penalized simply because a physician might have Medicare-eligible patients who prefer, for whatever reason, to privately finance their own care.

The Council sent letters to our entire congressional delegation detailing these concerns, and followed the letters with a trip to Washington on March 9 and 10, 1998. While there, we met with our congressional delegation and our contract lobbyist, John Montgomery.

The "Balanced Budget Act of 1997" was signed into law by President Clinton in August of 1997, and Senator Don Nickles, the only member of our delegation on the conference committee, as well as his health staffer, Scott Whitaker, are to be commended for their hard work on our behalf. About 90 percent of OSMA's goals were met with regard to the passage of this Act, including:

1. Significant language insuring elements of protection for our patients, including "gag clause" prohibition, comprehensive consumer informa-

Governmental Activities

tion for patients, open enrollment in Medicare HMOs through the year 2001, and inclusion of the "severe pain" language in the Emergency Room admission criteria;

2. Our recommendation that the House language preventing the implementation of the resource based practice expense until January 1, 1999, with gradual phase-in over four years, and appropriate input from physicians' groups was adopted;
3. Single Conversion Factor of \$37.13 was included;
4. Overall reductions in physician reimbursement were held to 5.3 billion dollars over a five-year period;
5. A four-year demonstration project for MSAs, involving a potential 390,000 patients;
6. Inclusion of PSOs in Medicare Choice Program, with mechanisms to by-pass state licensure bureaucracy, if necessary;
7. No competitive bidding for laboratory services;
8. A requirement of submission of appropriate ICD-9 test codes for laboratory work, by the requesting physician, if required by the Medicare carrier.

The Council will continue to work closely with the Oklahoma Congressional Delegation on issues of importance to physicians and their patients.

OSMA has a tremendous relationship with the members of the Oklahoma Congressional Delegation. We have access to all members of our Delegation, and individual physician relationships with our U.S. Senators and U.S. Representatives are extensive. John Montgomery, our Washington representative, has been very helpful to our efforts. As a result of these positive relationships, our Delegation is very supportive of OSMA's position on health care issues.

Another ingredient in the successful federal strategy is the regular presence of OSMA members in Washington. The OSMA President visits Congress personally at least once a year and on an

as-needed basis. The OSMA is also well represented at the AMA National Leadership Conference which includes Capitol Hill visits.

Attached, for information, are sample copies of correspondence mailed to the Oklahoma Congressional Delegation on behalf of OSMA members since the last OSMA Annual Meeting.

Recommendations

1. All OSMA members should contribute to the Oklahoma Medical Political Action Committee (OMPAC) and the American Medical Political Action Committee (AMPAC).
2. Physicians interested in federal legislation and regulatory activity should advise the President of the OSMA of their interest in the activities of the Council.
3. County and specialty societies are encouraged to send a representative to the AMA's National Leadership Conference.
4. Physicians should become involved in the grassroots efforts to get to know their congressmen personally and to call on them when critical issues arise in Congress.

Budget Request: \$41,500

Respectfully submitted,
Richard J. Boatsman, Chair
Jack J. Beller, MD
Edward N. Brandt Jr., MD
Sara R. DePersio, MD
Jay A. Gregory, MD
C. Wallace Hooser, MD
Perry A. Lambird, MD
Gary Lee Paddock, MD
James R. Rhymmer, MD
Victor L. Robards Jr., MD
Mrs. Sherry Strebel
Roland A. Walters, MD
Kenneth W. Whittington, MD

Jay A. Gregory, MD
Steven A. Mueller, MD

REPORT OF THE COUNCIL ON STATE LEGISLATION AND REGULATION

Reference Committee III (A-98)

Subject: Annual Report

Presented by:

Edward N. Brandt, Jr., MD

Referred to: Reference Committee III

Introduction:

The Second Session of the Forty-Sixth Legislature convened on Monday, February 2, 1998. The combined House and Senate filed 2,056 pieces of legislation, with 1,632 carryover bills from the 1997 session. At the beginning of the session, OSMA was tracking over 200 bills related to health care, insurance and other areas of interest to medical doctors and their patients, several of which were sponsored or co-sponsored by the association.

In order to provide the most effective legislative efforts, the OSMA legislative team was reorganized for the 1998 session. To serve as an assistant to chief lobbyist Lynne White, the OSMA contracted with Ms. Tracy Vargas, a 1997 OU graduate currently enrolled in the university's graduate program in Health Administration and Policy at the OU Health Sciences Center. OSMA Associate Director Kathy Musson was designated as the Director of Political Affairs working on grassroots efforts to improve physician contact with legislators. Ms. Judy Lake assists the legislative team by serving as staff liaison for the Council.

The Council on State Legislation and Regulation has met on a bi-weekly basis since January 6, 1998, and will continue to meet as needed up until Sine Die on May 29th.

Review of Activities

1997 Legislative Session Overview

The 1997 legislative session set a record for the number of bills filed, with the combined House and Senate filing 2,205 pieces of legislation. Of these bills filed, approximately one-third affected health care delivery in some way; 423 (or 19%) were actually signed by



OSMA staff take time for a group photo. In front, from left are Marilyn Fick, Shirley Burnett, Judy Lake and Toni Farrar. In back, from left are Kathy Musson, Sue Graves, Lynne White, Brian Foy, Barbara Matthews, Janet Carr and Debbie Adams.

the Governor. OSMA's 1997 legislative program was one of the most ambitious in years and one of the most successful ever. The Association introduced several of its own pieces of legislation and strongly supported a number of others. Without exception, every single bill that OSMA introduced was signed into law. A brief description of the major OSMA 1997 initiated bills follows:

✓ **HB 1416, Fairness in Managed Care Act** - This bill encompasses major reform provisions to protect both doctors and patients involved in managed care plans. Key provisions of the bill include adequate and understandable explanations for enrollees regarding what is and is not covered by the plan, improved definitions of urgent and emergency care to adequately cover the need for treatment in urgent and emergency situations out of area, as well as a prohibition on gag clauses. The bill, also contains language requiring that employers of 50 or more employees who offer only an HMO must also offer a point-of-service option to enrollees. This bill was signed into law by the Governor on May 29, 1997.

✓ **SB 277, Immunizations** - This bill provides that all insurance plans which provide benefits for a family member of insured shall provide coverage for im-

munizations for each child from birth through the age of eighteen years without subjecting the immunization coverage to a co-pay or deductible. This bill was signed into law by the Governor on April 9, 1997.

✓ **HB 1532, Breast Cancer Protection Act** - This bill requires insurance companies to cover not less than 48 hours of in-patient care following a mastectomy and not less than 24 hours following a lymph node dissection for diseased breasts. This bill also includes requirements for coverage of reconstructive surgery of the affected breast as well as the contralateral breast when necessary to establish symmetry. This bill was signed by the Governor on April 22, 1997.

✓ **HB 1598, Drive Through Delivery** - This bill closes loopholes in the 1996 law which continued to allow insurance companies to deny adequate coverage for hospital stays. This bill was signed into law by the Governor on April 25, 1997.

✓ **HB 1360, State Trauma System Development** - This bill provides for voluntary participation by hospitals in the development of a Trauma Center Designation Program by the Oklahoma State Department of Health. This bill was signed into law by the Governor on May 19, 1997.

✓ **HB 1012, Informed Consent** - This bill allows the next of kin to approve experimental treatment for a patient when the patient is incapacitated without going through the lengthy and costly legal process to establish legal guardianship through the courts. This bill was signed into law by the Governor on April 16, 1997.

OSMA'S 1998 Legislative Agenda

The Council developed legislative goals again this year that reflect the OSMA's legislative policy and priorities. These legislative goals, along with the Council's 1998 Legislative Agenda, were submitted to OSMA's Board of Trustees for approval on October 19, 1997. Both the goals and the legislative agenda were approved unanimously.

OSMA's Legislative Goals read as follows:

Goal 1:

Insurance and Regulation Issues

Promote legislation that will protect and enhance patient access to appropriate quality care provided by medical and osteopathic physicians without the negative interference of insurance companies and regulatory entities.

Objective: Prevent any delay or denial of medically necessary patient diagnostic and treatment options while protecting the autonomy of the physician in medical decision making.

For Example:

1. Advocate legislation that will implement effective physician and patient friendly approaches to the implementation of managed care.
2. Seek methods for appropriately regulating the quality of care delivered by Managed Care Organizations (MCO's).
3. Promote legislative and regulatory protection for fair, reasonable and appropriate medical fees.
4. Monitor the implementation of Sooner Care and address problems arising therefrom.
5. Legislation to address delays in physician payments.
6. Legislation to mandate insurance coverage of newborn screening test.
7. Legislation to prohibit insurance companies and pharmacists from making substitutions for drugs with a narrow therapeutic index.
8. Legislation to prohibit insurance companies from using limited formularies.

Goal 2: General Health Issues

Promote legislation that will enhance the health and well-being of the public.

Objective: Encourage the prevention of health problems, and promote healthy lifestyles, early intervention and appropriate treatment.

State Legislation and Regulation

For Example:

1. Support public policy and legislation curbing tobacco use.
 - A. Allow local communities to pass their own regulations on tobacco use and sales tougher than current state law.
 - B. Promote legislation providing for penalties for owners of any company selling tobacco products to minors.
 - C. Advocate legislation which appropriately restricts tobacco advertising, especially advertising targeted to young people.
 - D. Promote legislation to require strict enforcement of penalties.
2. Support legislation aimed at the control or prevention of violence, especially family violence, in Oklahoma.
3. Seek adequate funding for the Poison Control Center.
4. Seek new funding options that will help establish a statewide trauma system, including a Level 1 Trauma Center as passed by the OSMA House of Delegates.
5. Support legislation and regulations which would prohibit the sale of nonhuman primates to private citizens as passed by the OSMA House of Delegates.
6. Support public policy that would improve access to medical and public health services for all Oklahomans.
7. Continue active support of a strong medical education system to benefit future Oklahomans.

Goal 3: Scope of Practice

To provide the maximum protection of patients' health by assuring the best quality of care.

Objective: Preserve and protect the autonomy of all medical and osteopathic physicians in providing the highest quality of patient care and protect the public from health care providers that are less qualified.

For Example:

1. Resist any attempt by optometrists

to overturn the court ruling as to laser surgery.

2. Resist any attempts for prescribing privileges or any other increase in the scope of practice by pharmacists, optometrists, nurses, chiropractors and others.

Goal 4: Tort Reform

Promote legislation that will provide fairness and efficiency at all levels (District, Appellate and Supreme Court) of the civil justice system, especially in the professional and product liability arena.

Objectives: Preclude attempts to put the defendant physician(s) at a direct or indirect disadvantage in the medical malpractice lawsuit. To obviate professional liability tort laws that coerce the physician into pretrial settlement.

For Example:

1. At the end of the three year (1999 legislative session) executive and legislative moratorium on tort reform actions, support or introduce legislation to implement comprehensive professional liability reform.

Goal 5: Workers Compensation

Review and monitor workers compensation legislation to determine the impact on physicians who render medical services in the workers compensation environment.

Objectives: Prevent any change of the workers compensation laws that adversely affect the way medical or osteopathic physicians deliver care to an injured worker and support such changes that improve such care.

Legislative Subcommittees:

The Chairman of the Legislative Council appointed four subcommittees to study bills and report recommended positions to the full Council. These subcommittees include:

Insurance & Regulation, Warren Filley, MD, Chair;
General Health Issues, Steven Crawford, MD, Chair;
Scope of Practice, Gary Strebel, MD,

Chair; and
Other Health Issues, Michael Schwartz, MD, Chair.

OSMA's 1998 Legislative Agenda (priority bills) include the following:

Bills Supported by the OSMA

✓ **HB 1602, The Oklahoma Patient Care Quality Improvement Act** by Russ Roach of the House and Brad Henry of the Senate. If enacted, this act will protect the confidentiality of sensitive information exchanged during a hospital's current quality improvement process. The OSMA is working with the Oklahoma Hospital Association and the Oklahoma Osteopathic Association to achieve passage. Status - This bill has passed the Senate and will go to Joint Conference Committee.

✓ **HB 2578, Standardized Application Form** by Betty Boyd of the House and Brad Henry of the Senate. HB 2578 requires the State Board of Health to promulgate rules for the purpose of developing a uniform, standardized application form for use in the credentialing and recertification of health care providers. This bill was amended in the Senate Human Resources Committee to allow for supplemental information to be requested by those initiating the form. Status - This bill has passed the Senate and has been sent to the House for acceptance/rejection of Senate amendments.

✓ **HB 2599, Off-Label Use of Drugs and Devices**, by Mike Thornbrugh of the House. This bill is intended to clarify the meaning and intent of the Oklahoma Drugs, Devices and Cosmetics Act. This statute is intended to mirror the federal statute. Both federal and state laws prohibit drugs and medical device manufacturers from marketing their products for other uses, at different dosages to age groups not specifically included the packaging insert or label. According to the FDA, package inserts containing approved labeling are intended to provide physicians with information to assist them in making sound treatment decisions and are not



Lynne White, Edward N. Brandt Jr., State Rep. Debbie Blackburn and Mukesh T. Parekh visit at the Inagural Banquet.

intended to restrain or restrict the practice of medicine. Status - This bill has been reassigned to the Senate Business and Labor Committee.

✓ **HB 2624, Therapeutic Pain Management**, by Ray Vaughn of the House and Howard Hendrick of the Senate. This bill provides that neither disciplinary action nor state criminal prosecution shall be brought against a health care professional for the prescribing, dispensing or administering of medical treatment for the therapeutic purpose of relieving pain who can demonstrate by reference to an accepted guideline that such health care professional's practice substantially complied with accepted guidelines. Although supportive of the intent of HB 2624, OSMA expressed serious concerns about some of the provisions of the bill. At the request of OSMA, the bill was amended by deleting all references to "health care professionals" other than "medical doctors" and "osteopathic physicians". The OSMA is working with Senator Hendrick, the physician licensure boards and the Bureau of Dangerous Drugs and Narcotics to "tighten up" the language of the bill and determine if legislation is necessary or if this may be adequately addressed by licensure board rules. Status - *HB 2624 passed the Senate Judiciary Committee and is on General Order in the Senate.*

✓ **HB 2701, State Children's Health Insurance Program (SCHIP)**, by Don Ross of the House and Angela Monson of the Senate. This bill instructs the Oklahoma Health Care Authority to prepare a state plan including options for a public-private partnership for the implementation of the SCHIP program along with any necessary and appropriate requests for waivers to the Oklahoma Legislature for selection and approval prior to submitting a state plan to the federal Secretary of Health and Human Services. Status - This bill is on General Order in the Senate.

✓ **HB 2947, Mental Health Parity**, by Wallace Collins of the House and Angela Monson of the Senate. HB 2947 requires group health insurance and health benefit plans to offer coverage for severe mental illness equal to the benefits for other physical diseases and disorders as an option to enrollees. HB 2947 will not apply to groups of 25 or fewer employees. Status - *HB 2947 is on General Order in the Senate. SB 1059, by Monson of the Senate and Seikel of the House, is a similar bill that will not apply to groups of 50 or fewer employees. Status - SB 1059 is on General Order in the House.*

✓ **HB 3169, The Genetic Nondiscrimination Act** by Betty Boyd of the House and Penny Williams of the Senate. HB 3169 prohibits insurance companies from, directly or indirectly, requiring genetic testing or using information obtained from genetic testing to determine rates or any other aspect of insurance coverage provided to an individual or a family member. Status - This bill passed the Senate and will go to Joint Conference Committee.

✓ **SB 840**, by Brad Henry of the Senate and Abe Deutschendorf of the House, amends the "Oklahoma Do-Not-Resuscitate Act" by inserting a new section to allow the parent or guardian of a minor child to notify the attending physician based on information sufficient to constitute informed consent, does not consent to the administration of cardiopulmonary resuscitation in the event of the minor child's cardiac or respiratory

arrest and such notification has been entered into the minor child's medical records. The bill also provides for revocation of the DNR consent. Status - *This bill passed the House and will be sent to the Senate for acceptance/rejection of Senate amendments.*

Bills Opposed by the OSMA

✓ **SB 1192, Laser Surgery by Optometrists**, by Mike Morgan of the Senate and Dale Wells of the House. This measure which was strongly opposed by the OSMA and other medical groups including the OSMA Alliance, Oklahoma Osteopathic Association, the Oklahoma Academy of Ophthalmology and the American Academy of Ophthalmology. Despite intensive lobbying efforts by all those opposed to the bill, it was signed into law by Governor Frank Keating on March 16, 1998. The measure moved quickly through both houses, first passing the Senate with a vote of 33 to 13 and then the House with a vote of 76 to 22.

OSMA physicians responded to the Legislative Council's "Calls to Action" resulting from the many letters, blast faxes, and phone calls from OSMA headquarters. Physicians, through contacts with their legislators and the Governor, helped OSMA attempt to convey medicine's message that passage of S.B. 1192 would compromise the quality of health care for Oklahomans. The Governor's office received over 1600 telegrams and letters, as well as many phone calls, from the medical community opposing S.B. 1192. A complete listing of all communications to physicians and legislators from the OSMA headquarters is available upon request. With the signing of the measure, Oklahoma becomes the only state in the nation which allows optometrists to perform laser surgery. Despite the overwhelming support for S. B. 1192, there were a number of legislators who stood up for quality patient care by voting against the measure. Many spoke for our position at Senate and House Committee hearings and on the Senate and House floors. Those legislators are listed below:

State Legislation and Regulation

(continued)

Senate: Bernest Cain, Oklahoma City; Brooks Douglass, Oklahoma City; James Dunlap, Bartlesville; Mike Fair, Oklahoma City; Charles Ford, Tulsa; Bill Gustafson, El Reno; Howard Hendrick, Oklahoma City; Robert Milacek, Waukomis; Jerry Smith, Tulsa; Mark Snyder, Edmond; Penny Williams, Tulsa; Jim Williamson, Tulsa; and Ged Wright, Tulsa.

House of Representatives: Betty Boyd, Tulsa; John Bryant, Tulsa; Odilia Dank, Oklahoma City; Joe Eddins, Vinita; Lloyd L. Fields, McAlester; Chris Hastings, Tulsa; Ron Langmacher, Carnegie; Doug Miller, Norman; Fred Morgan, Oklahoma City; Jim Newport, Ponca City; Mike O'Neal, Enid; William R. Paulk, Oklahoma City; Fred Perry, Tulsa; Wayne Pettigrew, Edmond; Russ Roach, Tulsa; John T. Stites, Sallisaw; John Sullivan, Tulsa; Leonard E. Sullivan, Oklahoma City; Michael Thornbrugh, Tulsa; Opio Toure, Oklahoma City; Robert E. Weaver, Shawnee; and Robert Worthen, Oklahoma City.

✓ **SB 893**, by Howard Hendrick of the Senate and Ray Vaughn of the House. This bill requires ambulatory surgery centers to annually furnish written verification to the Commissioner of Health that at least 45 percent of its gross revenues are from Medicare, Medicaid or both. Ambulatory surgery centers will be required to provide emergency room services on a 24-hour basis with continuous physician services, and registered professional nursing services whenever a patient is in the facility and which does not provide services or other accommodations for the patients to stay overnight. Status - this bill died in the House Committee on Public Health.

✓ **SB 1191**, by Lewis Long of the Senate and Charges Gray of the House. SB 1191 would require the State Board of Medical Licensure and Supervision and the State Board of Osteopathic Examiners to certify physicians' practices by

specialty and would mandate that a physician could not practice outside the specialty for which they had been certified. Status - After intensive lobbying from physicians, Senator Long agreed to withdraw the bill.

✓ **SB 1193**, by Darryl Roberts of the Senate would require unlicensed assistive persons working in private physicians' offices to be licensed by the Oklahoma Board of Nursing. Status - *SB 1193 is dead because the author of the bill agreed to withdraw the bill from consideration.*

✓ **SB 1225**, by Trish Weedn of the Senate, would prevent an ambulatory surgery center from being established in a county with a population of less than 200,000 in which there currently exists municipal or county hospital. The legislation would not affect renewal licenses for ambulatory surgery centers licensed prior to enactment of this bill. Status - *This bill died in the House Committee on Public Health.*

✓ **HB 2336**, by Doug Miller of the House. HB 2336 mandates that physicians forward certain information to the Department of Public Safety if the physician believes the patient's medical condition could impair driving a vehicle. Status - HB 2336 is dead because the author of the bill agreed to withdraw the bill from consideration.

✓ **HB 2452**, by Bill Paulk of the House and Ben Robinson of the Senate, would require that in the future new hospitals and ambulatory surgery centers be will be required to provide written verification annually to the Commissioner of Health showing that at least 45 percent of gross revenues are from Medicare, Medicaid or both. Status - This bill died in the Senate Committee on Business and Labor for lack of a hearing.

✓ **HB 3259**, The Homeopathic Physicians and Surgeons Licensure Act", by Ron Kirby of the House, defines homeopathic medicine and surgery as a system of healing arts which generally accepts physical, pharmacological and

surgical methods of diagnosis and therapy while placing strong emphasis on improvement of body mechanics to detect and correct faulty structures.

Status - This bill failed in the House Public Health Committee and is now dead.

Grassroots Development Program

The OSMA's grassroots network is being expanded to include larger numbers of physicians from a variety of subspecialties. Increased participation from the OSMA Alliance and the Medical Student Section is also being sought. In addition, the OSMA is working on improving the "key contact" program involving physicians in the communities of "key" legislators that serve on committees handling most of our legislation or in legislative leadership roles. All physicians are encouraged to become involved in these grassroots lobbying programs.

Doctor of the Day Program

The "Doctor of the Day" program continues to provide physicians with an opportunity for an up-close look at politics in action and also adds to OSMA's presence at the capitol. The legislative staff has provided information regarding current legislative issues to each "Doctor of the Day" and have involved them in our lobbying efforts where their activities can be timely and appropriate. This increased physician-legislator contact has proven beneficial to our legislative effort.

Legislative Communications

Legislative updates are provided on a regular basis in the Week in Review and in the OSMA newsletter and a full overview of each session is provided in a Legislative Summary. Statewide mailings are done periodically when time allows for such correspondence to be read by the membership prior to key votes. Targeted legislative alerts are faxed to members who are needed to impact the legislative process at key points. Recently the OSMA implemented a blast-fax program which allows for immediate dissemination of information to those physicians who can receive fax communications. The Legislative

Council plans to work with the OSMA Council on Professional and Public Relations to expand the legislative portion of OSMA website, OSMA Online to include additional legislative information for physicians.

Conclusion

OSMA's legislative program continues to be an aggressive one, advocating for patient health issues by initiating legislative measures beneficial to the people of Oklahoma and attempting to defeat those measures which would prove detrimental to those goals. As evidenced by the success of the 1997 legislative session wherein all OSMA initiated legislation was signed into law, the association continues to maintain a positive presence at the State Capitol. Despite the passage of SB 1192, laser surgery for optometrists, the OSMA continues to be successful in the passage of most bills supported by the Council and the defeat of most bills which the Council opposes. All OSMA members are encouraged to become involved in the political process and support the efforts of the Council by volunteering for the Doctor of the Day Program, signing up for the "Key Contact" and grassroots programs or communicating with legislators on a routine basis.

Respectfully submitted
Edward N. Brandt, Jr., MD, Chair
John L. Aldridge, MD
Richard J. Baltaro, MD
Mrs. Paige Barby-Byers
Jack J. Beller, MD
Richard J. Boatsman, MD
Jenny Boyer, MD
William O. Coleman, MD
Hugh M. Conner Jr., MD
Steven A. Crawford, MD
Sara R. DePersio, MD
S. A. Dean Drooby, MD
Scott J. Dunitz, MD
Mrs. Doris Edge, MD
Warren Filley, MD
Jay A. Gregory, MD
C. Wallace Hooser, MD
Carol Blackwell Imes, MD
Mrs. Barbara Jett
David C. Kendrick, MS
John C. Leatherman, MD

Robert M. Mahaffey, MD
Ms. Patty Raines, CPA
Michael J. Schwartz, MD
Jeffrey T. Shaver, MD
Roger E. Sheldon, MD
Gary F. Strebel, MD
Mrs. Sherry Strebel
Lanny F. Trotter, MD
J. Ross Vanhooser, MD
Kenneth N. Vermette, MD
Joan L. Walker, MD
Tisha Dowe Westmoreland, MD

REPORT OF THE COUNCIL ON MEMBER SERVICES

Reference Committee III (A-98)
Subject: Annual Report
Presented by: William Bernhardt, MD,
Chair
Referred to: Reference Committee III

Introduction:

The various programs of the Member Services Council are designed to encourage participation and membership in the Oklahoma State Medical Association. The products and services offered should provide quality and value to the association members and when possible, provide a source of non-dues revenue to the association at no expense or detriment to the membership. Various endorsements also provide advertisement in our Journal, the Directory of Physicians, and exhibit fees and sponsorships at the OSMA Annual Meeting.

Financial Report

In reviewing the financials of the Member Service For Profit Corporation and the Council on Member Services for 1997, both expenses and revenue were up over 1996 figures. At year end, the Council on Member Services produced a net profit in non-dues revenue of \$8,319.00. The Member Service Corporation produced a net profit in non-dues revenue of \$21,199.00 during 1997. To assist with OSMA operating funds, \$20,000 was moved to the OSMA accounts. The Member Services Corporation accounts were left with a balance of \$24,847.00 after the transfer of funds was made.

Procedures and Guidelines/Criteria for Corporate Relationships and/or Endorsement of Preferred Vendors

Due to the recent activities at the AMA regarding its corporate relationships and endorsements, this Council felt it was appropriate for a re-evaluation of how OSMA has been dealing with the vendors handling our various member services. Your Council on Member Services has been preparing a formal set of "Procedures and Guidelines/Criteria for Corporate Relationships and/or Endorsement of Preferred Vendors" which are currently under review by the OSMA Executive Director and will require legal review. These Guidelines will eventually be presented to the Board of Trustees for approval and implementation.

At the present time a moratorium has been placed on any new preferred vendors offering a "product" and no new preferred vendors offering "services" will be considered until the above-referenced guidelines/criteria have been approved by the Board of Trustees. Once these guidelines/criteria are approved, this Council will then approach all existing preferred vendors and advise them of any changes which may need to be addressed in the existing contract arrangements.

Review of Activities

Your Council on Member Services met in September of 1997 and February of 1998. The following is a brief description of the various activities of the Council for that period of time. Also, attached to this report is a breakdown of the activities of the various "preferred vendors" during 1997 and the educational programs offered since the last annual meeting. For further information regarding any of the Preferred Vendor Programs, you may contact Toni Farrar of the OSMA staff.

Utilization of OSMA News

In June of 1997, the OSMA News began dedicating the last page of the publication to the activities of the Council on Member Services. A listing of current "preferred vendors" is provided each month, as well as in-

Member Services *(continued)*

formation regarding educational programs and other pertinent information regarding the various programs offered to the membership.

Medical Savings Accounts

At the September meeting of the Council, Mr. Harold Wardlow with C.L. Frates discussed the medical savings account plan now being offered through PLICO Health. Mr. Wardlow will be presenting an educational program on "Understanding Medical Savings Accounts" during the 1998 Annual Meeting.

Survey of other State Programs

A survey of the various state association member service programs was performed in February of 1998. (See results attached to this report.)

Discontinued or Inactive Programs

Administration Management Services Organization (AMSO) - In August of 1996, the Council developed AMSO to provide administrative services on a contract basis for any medical specialty society or special interest group. There has not been significant support to sustain this program.

A.E.C. Solutions - A.E.C. Solutions offered a discount on Olympus dictation products to members of the OSMA. The Council withdrew this "endorsement" in September of 1997. There was no contract in existence.

INTRAV Travel Programs - At the request of INTRAV, due to low participation by OSMA members and OSMA utilizing another travel company (TRAVCON), the INTRAV program ceased in mid-1997.

Speed Press - Due to lack of utilization of the printing services and no existing contractual relationship with Speed Press, this program is no longer being offered to OSMA members.

Stillwater National Bank (SNB) credit card program - Effective October 1, 1997, First USA agreed to take over the affinity credit card programs managed by Stillwater National Bank & Trust. First USA did not wish to offer a royalty agreement to OSMA to continue handling our affinity credit card program. Therefore, SNB offered to "buy out" the remainder of its contract with OSMA which was to expire on March 28, 1998. SNB agreed to pay OSMA the average royalty amount based upon the last 18 months income to cover the remainder of the time on the contract which amounted to \$3,628.00. This agreement then allowed OSMA to enter into negotiations with another vendor. The termination agreement with SNB was signed on September 12, 1997. One Hundred Thirty-Three (133) OSMA members were carrying the SNB Visa card when the plan terminated. Due to certain banking regulations, we have not been able to contact these specific cardholders personally to advise them of the change. However, we have made every effort in new marketing pieces and through utilization of the OSMA News to advise all OSMA members of the new card program with MBNA.

Program Changes

C. L. Frates Insurance plans - OSMA endorses the following insurance programs offered by C.L. Frates and Company under a royalty agreement with OSMA: Business Overhead Expense; Disability Income; Group Term Life; Hospital Indemnity; Accidental Death and Dismemberment, High-Limit Term Life, and a Workers Compensation Plan.

A change in the underwriting company will become effective May 1, 1998. As approved by the OSMA Board of Trustees at its meeting on January 18, 1998, the new underwriting company is U.S. Life Insurance Company. The franchise programs to be taken over by U.S. Life include: Disability Income, Office Overhead Expense, Full-time Accident and

Hospital Indemnity Insurance previously underwritten by UNUM of America Life Insurance Company. The current insureds and their programs will be taken over without change. Subsequent insureds will receive the same excellent, low cost benefits offered through the term life program, business overhead expense, hospital indemnity, and full time accident policies. The disability income program will continue to offer an own occupation definition of disability with benefits payable to age 65, or two years, whichever is longer. Subsequent insureds will be offered the same program of benefits with only the following minor changes which include a benefit limitation on drug and alcohol, mental and nervous.

Oklahoma Centralized Verification Organization (OCVO) - The OSMA Board of Trustees approved an expenditure of \$50,000 in 1996, and another \$50,000 in 1997 to partner with the Tulsa County Medical Society to provide the Oklahoma Centralized Verification Organization (OCVO) statewide. The program is an excellent service for OSMA members in that it centralizes the credentials application process for many of the various managed care organizations and hospitals. This Council is involved in the marketing of this service, however, all negotiations and business decisions in regard to OCVO are being handled directly through the Board of Trustees.

OCVO processed over 4,000 applications in 1997. This included both the initial application process, as well as the centralized reappointment program. As of February, OCVO had 56 contracts with various managed care organizations, hospitals, surgicenters, group practices, and nursing homes. Thirty-six (36) of the contracts participate in the centralized reappointment program.

A Statement of Intent between the American Medical Association (AMA) and the Oklahoma State Medical Association (OSMA) to document the initial intent of AMA and OSMA to negotiate, in good faith, for OSMA

to provide credentials verification and office site review services to the AMA to assist in implementation of the American Medical Accreditation Program (AMAP) was agreed upon in February of 1998. (See the Board of Trustees Report for further information.)

New Programs

LDS Communications - LDS Communication became a preferred vendor for OSMA in June of 1997. LDS offers simple 1+ dialing, Wats, private lines, 800 services, tele/video conference calling, as well as full, direct Internet access and complete WWW services. The contract comes up for renewal in June of 1998. Little income was realized during 1997 due to a lack of marketing efforts. The long distance/Internet access business is very competitive and the Council will be reviewing this member service offering to decide if it is an effective program worth continuing.

MBNA - Through an arrangement with MBNA Americas Bank, one of the nation's largest issuers of affinity credit cards, OSMA is now offering to its members an

Oklahoma State Medical Association MasterCard® program. By using the credit card, OSMA members support our medical association - even if they pay off their account balance every month.

MBNA has agreed to pay OSMA royalties, due approximately 45 days after the end of each calendar quarter, based on the following:

Credit Card Accounts: (Standard, Gold, Platinum -- variable rate of prime plus 7.9% - No annual fees) \$ 1.00 for each new account, 0.40% (one fortieth of one percent) of all retail purchase transaction dollar volume.

Credit Card Accounts: (Standard, Gold, Platinum "Plus" -- variable rate of prime plus 7.4% - \$35.00 yearly enrollment charge for the Optional Plus

Miles Enhancement) \$1.00 for each new account, 0.10% (this quarterly rate on an annualized basis is .40%, or one fortieth of one percent) of average monthly outstanding balance.

Revolving Loan Accounts (Gold Reserve/16.9%/\$20.00 annual fee after first year and Gold Option/13.99%/ No annual fee) \$0.50 for each account opened which remains open at least 90 days. 0.25% (twenty-five one-hundredths of one percent) of the average of all month-end outstanding balances in the calendar year. \$2.00 for each applicable 12 month period that a Customer pay the annual fee or remains open.

Deposit Accounts (CD or MMDA Deposits) 0.05% (five one-hundredths of one percent) on an annualized basis on CD. 0.10% (ten one-hundredths of one percent) on an annualized basis on MMDA.

GIP Accounts (account generated by promotion piece OSMA pays for) \$20.00 for each account opened.

* MBNA will pay OSMA a \$7,500 royalty advance upon completion of the first full marketing campaign, which will be the initial mail-out to all members. (refundable if contract terminated).

* MBNA will pay OSMA a \$5,000 signing bonus (nonrefundable).

No income was realized from MBNA during 1997. OSMA received the \$7,500 royalty advance in January and the \$5,000 signing bonus in February of 1998. The contract with MBNA became effective November 13, 1997, and will come up for renewal in 2002.

Rejected Programs

Xélan is another investment program similar to UPAL. The Council felt there would be a conflict with UPAL and since OSMA members have not expressed any problems with UPAL,

no change was considered.

Message on Hold professionally produces taped announcements personalized for the physician's office for its patients to listen to when they are "on hold." They provide music and service announcements scripted by the physician. The Council considered this program, but decided to not pursue an endorsement contract.

Physicians Fit is a program being offered by Quest which allows individuals to pay a lower price for prescriptions when buying them from certain pharmacies. It was decided to not endorse this program at present.

Programs Pending Consideration

James J. Feist, Financial Planning Consultant Mr. Feist has performed several retirement seminars in the past for the OSMA at no charge. He would like to be considered as a preferred vendor for financial planning consultation. He would make recommendations to physicians for investment vehicles, which would include UPAL. Pending the finalization of the new guidelines/criteria, Mr. Feist's proposal is still under consideration.

Special Expeditions This is a travel company which offers exotic tours. Further research is being conducted. Pending the finalization of the new guidelines/criteria, this program is still under consideration.

Status of Goals established in March of 1997

1 Year Goal

Active promotion of the OSMA statewide credentialing services, the Oklahoma Centralized Verification Organization (OCVO), to all physician members.

Since March of 1997, the Board has continued to move forward regarding the promotion and utilization of OCVO by the medical community. OCVO is listed in the OSMA News and on the OSMA homepage, OSMAOnline, with a direct link to OCVO. Several letters

Member Services (continued)

were sent to various hospitals and medical facilities in June and July of 1997 encouraging them to utilize the services of OCVO.

1-3 Year Goals

Medical practice education for young physicians in practice less than 10 years.

A seminar on "Making the Right Choices" is being offered during the 1998 Annual Meeting and is sponsored by the Young Physicians Section. This Council will continue to keep educational seminars geared toward the young physician on its agenda.

Develop and conduct an aggressive OSMA physician membership recruitment program.

Due to membership in the OSMA now being offered to Osteopathic Physicians, this Council will continue to be available to assist the OSMA Membership Department to formulate and initiate any active recruitment plans deemed necessary.

3-5 Year Goals

Research and develop an OSMA physician placement service and central physician registry for locum tenens placement.

No activity has taken place in regard to this goal.

Seminar Activity

From April of 1997 through March of 1998, 544 people, consisting of physicians and various physician office staff members attended OSMA-sponsored educational seminars offered by the Council on Member Services. (See attached report for specific information regarding each seminar offered.)

Proposed Seminars to be presented during 1998 include:

Basic and Advanced Coding
Evaluation & Management Coding and Documentation
Computers Made Easy
Managing Managed Care Liability
How to Deal with Patients in Difficult Situations
Getting Started in Medical Practice - Making the Right Choices (Annual Meeting)
Medicare Fraud & Abuse

Communicating with Your Lawmakers (Annual Meeting)

Understanding Medical Savings Accounts (Annual Meeting)

Recommendation

This Council requests approval of the above-referenced "Proposed Seminars to be presented during 1998."

Conclusion

The Council on Member Services will make every attempt to continue to provide highquality educational programs for the physicians and their office staff, as well as provide competitive, quality services through the preferred vendor programs. The Council welcomes any and all comments and suggestions regarding any of the member service activities.

Respectfully submitted,
William Bernhardt, MD, Chair,

Midwest City
Matthew J. Britt, MD, Oklahoma City
Tim S. Caldwell, MD, Tulsa
Donald C. Karns, MD, Enid
Gene L. Muse, MD, Oklahoma City
James J. Snipes, MD, Tulsa
Jeffrey M. Spear, MD, Poteau
S. Fulton Tompkins, MD,
Oklahoma City
Toni L. Farrar, OSMA Staff

Survey of Vendors/Services

<u>Vendor</u>	<u>Service Provided</u>	<u>Non-Dues Revenue “Accrued in 1997”</u>	<u>Contract Began</u>	<u>Contract Ends</u>	<u>Participation by OSMA Members during 1997</u>	
<i>Autoflex</i>	Automobile Leasing/ Purchasing	\$1,100	01/1996	12/01	11 new Leases/Purchases	
<i>C.L. Frates and Company</i>	Insurance	\$6,000	10/1993	12/03	<u>New Policies</u>	<u>Policies to Date</u>
	<i>Business Overhead</i>				4	114
	<i>Disability Income</i>				6	211
	<i>Group Term Life</i>				41	218
	<i>Hospital Indemnity</i>				0	52
	<i>Accidental Death</i>				0	77
	<i>High Limit Term Life</i>				5	44

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<u>Vendor</u>	<u>Service Provided</u>	<u>Non-Dues Revenue “Accrued in 1997”</u>	<u>Contract Began</u>	<u>Contract Ends</u>	<u>Participation by OSMA Members during 1997</u>	
Conomikes						
Reports, Inc.	Publications/Medical Tape Seminars (21) Managed Care Handbooks (24) Successful Billing & Collecting Handbook (17) Conomikes Reports Newsletter (25) Medicare Hotline (21)	\$968.00	N/A	Open	<u>\$ Amount Sold</u>	<u>Royalty</u>
					\$756.00	\$75.60
					1,896.00	189.50
					1,343.00	134.30
					2,875.00	287.50
					2,415.00	241.50
Dedications -						
Quest Program	Travel Discounts on Car Rentals, Restaurants, Hotels	\$488.00	03/94	Open	122 Members	
Harrison Peck & Associates PC						
	Consultation/Practice Management	N/A	03/92	Open	20-25 Referral Calls 6 Billable Projects	
I.C. System, Inc.	Collections	\$3,049.28	09/86	Open	recovered \$162,347.81 (15.7%) of accounts receivable (\$1,031,269.26) for OSMA members.	
LDS						
Communications	Long Distance Service/ Internet Access	\$5.40	06/97	06/98	No active marketing done - 2 participants	
MNBA	Banking/Credit Card Program	0	11/97	11/02	No active marketing done - new program	
OK. Centralized Verification						
Organization	Credentials Verification	0	08/96	08/21	Processed over 4,000 applications - including both the initial application process, as well as the centralized reappointment program.	
PLICO	Liability Insurance	PLICO contributes a substantial amount to OSMA each year (see PLICO Report to Board of Trustees)	OSMA owns PLICO	N/A	4,200 participants (MDs and ODs)	
PLICO Health	Health Insurance	N/A	OSMA owns PLICO Health	N/A	As of December 1997 2,129 physicians (MDs) owned 5,000 policies.	
TaxResource	Consultation/Tax Audit	\$3390.96	12/95	Open	42	

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Member Services *(continued)*

<u>Vendor</u>	<u>Service Provided</u>	<u>Non-Dues Revenue "Accrued in 1997"</u>	<u>Contract Began</u>	<u>Contract Ends</u>	<u>Participation by OSMA Members during 1997</u>
<i>Travel the Continents (TRAVCON)</i>	Travel	\$954.00	08/96	Open	2 members (with their spouses) took the "Alaska-Voyage of the Glaciers" trip in June
<i>Utica Physicians' Assoc., Ltd. (UPAL)</i>	OSMA Group Pension	\$743.62	01/93	01/98	
		Number of <u>Participating Plans</u>	Number of Participants <u>in Plans</u>		<u>Overall Market Value of all OSMA Plans</u>
		7	12 (Physicians)		\$4,198,098
		1	(OSMA Staff Programs)		
<i>OSMA Seminars</i>	Seminars	Apprx. \$8,000	N/A	N/A	
	<u>July 1997</u> - "Re-engineering the Medical Practice: Accounting for Time Activity and cost" - 57 attendees in Oklahoma City and 17 attendees in Tulsa (Presented by Harrison Peck & Associates at no charge).				
	<u>September 1997</u> - "Audit-Proof Your Practice" - 35 attendees in Tulsa and 31 attendees in Oklahoma City. (Presented by Conomikes Associates)				
	<u>November 1997</u> - "Basic Coding for Physician Services" - 38 attendees in Tulsa; 44 attendees in Oklahoma City; and 16 attendees in Lawton. (Presented by Thomas and Associates)				
	<i>"Evaluation & Management Coding and Documentation"</i> - 68 attendees in Tulsa, 66 attendees in Oklahoma City; and 41 attendees in Lawton. (Presented by Thomas and Associates)				
	<u>February 1998</u> - "Advanced Coding for Physician Services" - 7 attendees in Woodward; 21 attendees in Tulsa; and 22 attendees in Oklahoma City (Presented by Thomas & Associates)				
	<i>"Evaluation & Management Coding and Documentation"</i> - 8 attendees in Woodward; 35 attendees in Tulsa; and 48 attendees in Oklahoma City. (Presented by Thomas & Associates)				
	Note: Handouts are generally provided at each of the seminars.				

REPORT OF THE COUNCIL ON MEDICAL EDUCATION

Reference Committee III (A-98)
Subject: Annual Report
Presented by: Roger E. Sheldon, MD
Referred to: Reference Committee III

Introduction

The OSMA Council on Medical Education studies and makes recommendations related to all matters of maintaining or improving the level of medical competency in Oklahoma, including but not limited to, maintaining liaison with other emerging health professionals or occupations, and the accreditation of providers of medical education in Oklahoma. The Council also monitors CME standards, as they may be required by

Review of Activities

Accreditation Review Committee

- Since the 1997 Annual Meeting, the Accreditation Committee reviewed Norman Regional Hospital's application for accreditation and approved the site surveyor's recommendation of a two (2) year provisional accreditation. Interim reports were accepted and approved from St. John Medical Center and Mercy Health Center.

- At the November 13, 1997 meeting recommendations were made to place Baptist Hospital on a probationary status until a new application can be completed and a site survey scheduled. The Committee reviewed pre-applications from Tahlequah City Hospital and Valley View Hospital in Ada. Applications for accreditation have been sent to both

institutions. Thirteen Institutions are currently accredited by the OSMA to provide Category I programs.

- Progress is underway to complete the Application for Continued Recognition of the OSMA by the Accreditation Council for Continuing Medical Education (ACCME) by July 1, 1998. Completion of the site survey will be done in Chicago during the business meeting of the Committee of Recognition and Review (CRR) in September. Currently OSMA is a recognized accreditation program that functions as an intrastate accreditor.

Council Activities

- The Council approved a newsletter to be developed and mailed to all current providers of CME in the state of Oklahoma (see attached).

- The Council approved a change in the OSMA Interim report adding a request to have the institutions list all programs offered since their last report to the OSMA.
- Work is in progress to have the application for accreditation be made available on a disc.
- The Council is working with the Publications and Public Relations Council to update the CME information on the web site.

Conclusion

The Committee continues to strive to monitor and improve the CME offered to Association members throughout the State.

Respectfully Submitted,
 Roger E. Sheldon, MD, Chair
 M. DeWayne Andrews, MD
 John Nelson, MD
 Melissa Clements, MD
 Doug Corrie, MD
 Antonio DeLeon, MD
 William H. Hall, MD
 Ward Hardin, MD
 Donald Karns, MD
 Joseph Moore, MD
 B. Bhushan Sharma, MD
 Renee B. Willis, MD
 John Nettles, MD

REPORT OF THE COUNCIL ON MEDICAL SERVICES

Reference Committee III (A-98)
 Subject: Annual Report
 Presented by: Jack J. Beller, MD, Chair
 Referred to: Reference Committee III

Introduction

During the first portion of the 1997-98 Association year, the Council on Medical Services was reorganized and its function was redirected to make it more consistent with the OSMA bylaws, i.e. "study, make decisions, and formulate activities with respect to the provision of adequate medical care." This charge has taken the Council on Medical Services primarily to the issue of helping our members deal with managed care. The Council met on October 9, 1997, December 18, 1997, and March 26, 1998.

Review of Activities

Resolution #24 (A-97)

Resolution #24 (A-97) instructed the Council on Medical Services to survey the various HMOs doing business in the State of Oklahoma. Attached is a copy of that report tabulating the tax status, contracting status with Medicare/Medicaid, number of enrollees, counties served in the State of Oklahoma, number of primary care physicians under contract, number of hospitals under contract, year-end revenue, amount paid for patient care (including the amount spent for physician services), administrative expenses, and income/loss ratio.

1998 House of Delegates referred Resolution 24 (A-97) back to the Council for further study.

"Hassle Factor Log"

The "Hassle Factor Log" has been widely disseminated to the membership via the *Journal*, direct mail, and distribution through county medical societies. Currently 250 Hassle Factor logs have been forwarded to the Council. We will continue to tabulate these until trends are determined. We will then approach the involved third party payor with the documented evidence of hassles and ask for a resolution of the problem.

HMO Medical Directors Ad Hoc Committee

Along with the Council on State Legislation and Regulation, we have established an ad hoc committee for communication with HMO medical directors in Oklahoma and have discussed legislative issues of concern to both organizations and possible educational forums whereby our membership could be apprised of the inner workings of an HMO. This ad hoc group will also be the mechanism whereby we deal with documentation of "Hassles."

Letters Regarding Various Issues

The Council has written letters of support to members who are having problems with managed care organizations, including deselection from health plans without cause, contested sanctions from

Oklahoma Foundation for Medical Quality, automatic down-coding of Evaluation and Management codes by third party payors, and attempts by our members to negotiate fair contract terms with managed care organizations.

The Council has provided feedback to the American Medical Association on the issue of "Individually Selected and Owned Health Insurance," HCFA documentation guidelines for Evaluation and Management services, and Medicare Hospital Conditions of Participation. The Council has also made available to the membership a report from the American Medical Association Division of Representation regarding Model Managed Care Medical Services Agreements.

Many of the above-referenced items will be made available at the OSMA General Information Booth during the Annual Meeting.

Ad Hoc Committee on Managed Medicaid

The Ad Hoc Committee met three (3) times during 1997 and once in 1998 (see attached minutes). Members of the Committee include: Mary Anne McCaffrey, MD, Chair; Glenn Dewberry, MD; Herbert Rowland, MD; Bruce Storms, MD; Jane Thomason, MD; Thomas Tryon, MD; Kenneth Vermette, MD; and D.I. Wilkinson, MD.

Recommendations were made during the March 26th Medical Services meeting to support the Health Care Authority's budget, which includes an 8% increase for physician services and an increase for critical care/NICU physician services. Attached you will find the Health Care Authority Budget which reflects the line item change in budgetary increases as discussed above.

The Ad Hoc Committee will continue to meet and work with Representative Fred Stanley and the Oklahoma Health Care Authority in resolving the various issues of the physicians in the state of Oklahoma.

Conclusion

Jack J. Beller, MD, Chair, would like to express his appreciation to the Council Members for their time and dedication to serve.

Medical Services (continued)

Respectfully submitted,
Jack J. Beller, MD, Chair
William O. Coleman, MD, Vice-Chair
John R. Christansen, MD
Glenn P. Dewberry, Jr, MD
Mark A. Kelly, MD
Bartis M. Kent, MD
Perry A. Lambird, MD
Dennis R. Mask, MD
Mary Anne McCaffree, MD
John R. Perkins, MD
Herbert Roland, MD
Bruce L. Storms, MD
Donald R. Stout, MD
Kenneth N. Vermette, MD

REPORT OF THE COMMITTEE ON MEDICAL ETHICS AND COMPETENCY

Reference Committee III (A-98)
Subject: Annual Report
Presented by: Billy D. Dotter, MC, Chair
Referred to: Reference Committee III

Introduction:

In September, 1997, the Committee on Medical Ethics and Competency was given the responsibility of investigation, deliberation, and deposition of complaints regarding OSMA member physicians. David Selby, MD, President, OSMA, transferred this responsibility to the Committee on Medical Ethics and Competency from the Council on Medical Services to more accurately accomplish the intent of Chapter X, Section 4 of the OSMA Bylaws. Dr. Selby named the following OSMA members to the Committee: Billy D. Dotter, MD, Chair; William G. Bernhardt, MD; James D. Funnell, MD; Jay A. Gregory, MD; Chester L. Bynum, MD; Jack J. Belter, MD; and Steven A. Mueller, MD.

Review of Activities

The Committee on Medical Ethics and Competency met on October 9, 1997, at which time guidelines for handling grievances by which the committee's activities are regulated were approved. The Committee met again on

March 20, 1998. It has reviewed and adjudicated four formal grievances, referred four grievances to local county societies for adjudication, and forwarded three grievances against nonmembers to the Oklahoma State Board of Medical Licensure and Supervision.

Billy D. Dotter, MD, Chair, would like to express his appreciation to the committee members for their time and dedication to service.

Respectfully submitted,
Billy D. Dotter, Chair
Jack J. Belter, MD
William G. Bernhardt, MD
Chester L. Bynum, MD
James D. Funnell, MD

REPORT OF THE PHYSICIANS RECOVERY COMMITTEE

Reference Committee III (A-98)
Subject: Annual Report
Presented by: James Gormly, MD, Chair
Referred to: Reference Committee III

Introduction:

The Committee shall oversee a statewide advocacy program for locating, contacting, and offering rehabilitative help to physicians whose professional competency as been impaired because of alcoholism, chemical dependency, or substance abuse. It shall continue to work in liaison with the State Board of Medical Licensure and Supervision and shall establish programs of education and prevention concerned with alcoholism and other chemical dependence. It shall educate, identify, verify, intervene, direct to treatment and evaluate for re-entry into the active profession the affected physician.

Review of Activities

Physicians Recovery Search Committee

On September 16, 1997 the Physicians Recovery Director Search Committee met to review the job description and candidates for the Executive Director position due to the retirement of Darrell Smith, MD. After a thorough eval-

uation and statewide search by the Physicians Recovery Search Committee, chaired by James Funnell, MD, Harold Thiessen, MD was named as the Director of the Physicians Recovery Program. In addition to Dr. Funnell, the Committee will consist of Carol B. Imes, MD; Lanny G. Anderson, MD; Lynn E. Frame, MD; and William C. McCurdy.

During this Committee's evaluation and study there were serious questions raised about the equitable representation of both Tulsa and Oklahoma City with concern as to whether Tulsa was being adequately represented. With this in mind the Committee felt the new Director should appoint his assistants for Tulsa and Oklahoma City. The Committee recommended that the Physicians Recovery Committee work with the Director and Associate Directors to develop a brochure/information pamphlet to be distributed to all OSMA members.

The committee created a job description of what is actually being done in the State of Oklahoma and a contract for the Director and Associate Directors which it feels will meet the needs of the Association.

Physicians Recovery Committee

Dr. David M. Selby appointed a new committee this year following the search for the Director of the Physicians Recovery Program. The Committee met on Wednesday, December 10, 1997 and recommended the following:

- Adding a medical student to the Committee. A name will be requested from Dr. Jerry Vannatta, Dean, OU College of Medicine.
- Increase in salary for Dr. William O'Meilia, Associate Director in Tulsa, to cover secretarial expenses and PLI-CO liability insurance. This recommendation was approved by the Board of Trustees at the October Board of Trustees Meeting.
- Development of an informational brochure that will be distributed to new members, medical students, and the Osteopathic, Dental and Veterinarian Associations. The brochure is currently being reviewed by the PR firm hired by the Association in January.

- Dr. Thiessen will begin to look at implementing the Impaired Physicians data base which will track the physicians in treatment and provide a standardized set of forms to use on each physician. This data base was purchased in 1997.

Conclusion

The Committee will continue to work closely will Dr. Harold Thiessen, Director of the Physicians Recovery Program and both Associate Directors. The Committee will also be instrumental in providing support to the retreat sponsored by the Physicians Recovery Program.

Respectfully submitted,

James Gormley, MD, Chairman

Frank Crowe, MD

Thomas Lewellen, MD

Bill Stout, MD

C.R. Roberts, MD

James Rhymer, MD

David Casper, MD

Richard Brittingham, MD

Jim Couch, MD

Harold Thiessen, MD, Director, Physicians Recovery Program

Lanny Anderson, MD, Associate Director, Physicians Recovery Program

William O'Meilie, MD, Associate Director, Physicians Recovery Program

REPORT OF THE PHYSICIANS RECOVERY PROGRAM

Reference Committee III (A-98)

Subject: Annual Report

Presented by: Harold Thiessen, MD

Referred to: Reference Committee III

Introduction

It is the purpose of the Committee to create and maintain an effective statewide non-coercive advocacy program (Physicians Recovery Program-PRP) for identifying, contacting and offering rehabilitative help, ongoing monitoring for licensure and other purposes, for physicians suffering from alcoholism, substance dependence or other disorders. The PRP also serves as a confidential informational, support and refer-

ral resource for physicians and other health care professionals and their significant others for other behavioral health issues as well as physical impairments.

Review of Activities

The OSMA Physician Recovery Program continues to be among the leaders nationally in identifying, assisting in treatment and returning to practice physicians who have suffered from substance abuse dependency.

In August, 1997, Dr. David M. Selby, President of OSMA, appointed the following physicians to serve on the Physician Recovery Committee: James Gormley, M.D., Chairman; Clarence Roberts II, M.D.; Jim C. Couch, M.D.; Billy Stout, M.D.; Lanny Anderson, M.D.; David Casper, M.D.; Frank Crowe, M.D.; Richard T. Brittingham, M.D. and James R. Rhymer, M.D.

At a Physicians Recovery Committee meeting on December 10, 1997, a change in the budget was proposed. No new monies were requested, just a reallocation of existing funds was proposed which is as follows: \$14,000 which now includes brochures, educational materials, scholarship funds and annual meeting expenses. Also, the salary of Bill O'Meilie, M.D., Assistant Director in Tulsa, was proposed to be increased from \$12,000 to \$19,500. Again no new monies were requested, just a reallocation of existing funds. These two proposals were approved by the Board of Trustees at the January 18, 1998, meeting.

A medical student is to be added to Physicians Recovery Committee at the request of Jerry Vannatta, M.D., Dean of the University of Oklahoma School of Medicine. He has agreed to provide the committee with the name of a student who will serve on the committee.

As of March 15, 1998, five hundred eighty six (586) Oklahoma health care providers are or have been involved with the Physicians Recovery Program. Since March, 1997, thirty five (35) health care providers have been met with, treated or retreated. In addition the program works with a large number

of spouses, significant others and other family members. A complete statistical review of the program is part of this report.

An important part of the program continues to be providing documentation of the treatment and recovery status of our physicians and other health care professionals for licensing boards, drug registration agencies, insurance carriers, hospital and health maintenance organizations.

The program director serves as a representative on the American Society of Addiction Medicine National Physician Health Committee and as a member of the Federation of State Physician Health Programs.

Following Dr. Darrel Smith's resignation March, 1997, Dr. Harold Thiessen served as interim director until October, 1997, when he was appointed as Director by the Board of Trustees. Dr. Bill O'Meilie of Tulsa serves as Assistant Director for Eastern Oklahoma, and Dr. Lanny Anderson serves as Assistant Director for Western Oklahoma. Also, significant numbers of volunteer recovering physicians assist in interventions with impaired colleagues and providing support through meetings and networking.

The third annual Oklahoma Physicians in Recovery Retreat was held in October, 1997, and was successful. Seminars were led by Loyd Gordon, M.D., Director of COPAC from Mississippi; Earl Husband, Oklahoma City, (AA) and Dr. Ray Dykes, Minister from Oklahoma City spoke of Spiritual Rebirth on Sunday. People attended from all sections of the state, and it is planned to continue this annual event in January each year. The next retreat is scheduled for Tulsa in 1999.

The PRP continues to enjoy a cooperative and effective relationship with both the Oklahoma Board of Medical Licensure and Supervision and the Oklahoma Osteopathic Board.

The PRP has formal relationships with the Oklahoma Osteopathic Association, the Oklahoma Dental Association and the Oklahoma Veterinarian Association. We work informally with

Physicians Recovery Program (continued)

other health care professionals such as physicians assistants and psychologists as well as with medical and dental students. The recovery program is also coordinating the after care for two physicians from other states who are presently residing in Oklahoma.

■ REPORT OF THE COMMISSION ON INTERNATIONAL MEDICAL GRADUATES

Reference Committee III (A-98)
Subject: Annual Report
Presented by: Kautilya Mehta, MD,
Chair
Referred to: Reference Committee III

Introduction

The Commission on International Medical Graduates (IMG) was organized as a liaison to the Oklahoma State Medical Association on matters impacting all international medical graduate physicians practicing in Oklahoma.

Goals

The IMG Commission will continue to direct its efforts towards accomplishing the following goals:

1. CONTINUE THE RELATIONSHIP BETWEEN IMG'S AND THE OKLAHOMA STATE BOARD OF MEDICAL LICENSURE AND SUPERVISION: The Commission has had an ongoing project with the Oklahoma State Board of Medical Licensure and Supervision (OSB-MLS) to review all IMG applicants for licensure and to help resolve application deficiencies. The project has been very successful and helpful to the Commission and the Board. The Commission has also offered assistance to IMG applicants in securing information crucial to obtaining an Oklahoma license.
2. REPRESENT OSMA AT NATIONAL IMG MEETINGS: Several mem-

bers of the OSMA IMG Commission represented OSMA at national meetings, i.e., the AMA IMG Section and the AMA IMG Caucus. The national forums are an excellent resource for ideas and solutions for problems unique to the IMG population.

3. PROMOTING INCREASED MEMBERSHIP IN OSMA BY IMG PHYSICIANS: The OSMA leadership is encouraged to appoint IMG physicians to OSMA councils and committees to ensure that the IMG perspective is considered in all deliberations of the Association. The IMG Commission will continue its efforts to encourage IMG physicians to join OSMA and become involved in the association process.
4. TO INTERACT WITH THE OSMA PRESIDENT: The IMG Commission will encourage and recommend qualified IMG physicians to serve on various governmental boards and agencies that are appointed by the Governor. IMG physicians can bring a unique advantage to these positions in serving the citizens of Oklahoma.

Review of Activities

The IMG Commission met on September 25, 1997 to discuss and review the goals of the Commission. A brunch was held for AMA IMG Section Chair Busharat Ahmad, MD on Sunday October 5, 1997 at the OSMA Headquarters to discuss the various issues involving IMG members at the AMA.

Letters were sent to the 455 OSMA IMG members and the 201 non members encouraging them to join the OSMA and the AMA IMG Section. 104 OSMA members have joined the AMA IMG Section to date. The American Medical Association (AMA) formally recognized the importance of IMG's by establishing the IMG Section this year. By belonging to the Section, IMGs now have the opportunity to raise and discuss issues of particular importance to them. Resolutions passed by the IMG Section go before the AMA House of Delegates, ensuring that the members of the House are kept apprised of the needs and concerns of IMG physicians.

K. Mehta, MD, Chairman of OSMA's

IMG Commission was elected by the IMG Section of the AMA (at its meeting in Dallas) to the nominating committee, which will consider and present candidates for election to the IMG Governing Council.

The IMG Commission is appreciative of the opportunity to be of service to the medical profession and the Oklahoma State Medical Association.

Respectfully submitted,
Kautilya A. Mehta, MD, Chair
Vadakepat Ramgopal, MD
Saeed Ahmad, MD
Nelson Bocar, MD
William Fitter, MD
Juan G. Gonzalez, MD
Emmanuel N. Macaraeg, MD
Kyung Whan Min, MD
Mukesh T. Parekh, MD
George Pikler, MD
Dennis Roberts, MD
Avani P. Sheth, MD
Theodore Spencer, MD
Annie Venugopal, MD

■ REPORT OF THE OKLAHOMA MEDICAL POLITICAL ACTION COMMITTEE

Reference Committee III (A-98)
Subject: Annual Report
Presented by: Jeffrey Shaver, MD,
Chairman
Referred to: Reference Committee III

Introduction:

The Oklahoma Medical Political Action Committee is a voluntary, bi-partisan, unincorporated entity comprised of OSMA members, OSMA staff and OSMA Alliance members interested in supporting political candidates. Primarily, OMPAC is an independent and autonomous organization managed by its own Board of Directors. The Board of Directors has authority over all policies and activities of the political action committee and serve without compensation. The OMPAC Board conducts the business of the committee and meets periodically to consider the contribution of OMPAC funds to candidates for public office who support OSMA's legislative concerns.

Review of 1996 & 1997 Activities

To comply with the 1997 House of Delegates recommendations for a complete accounting of all Oklahoma Medical Political Action Committee (OMPAC) donations and expenditures for the 1996 legislative year, an audit was completed in July of 1997 of OMPAC'S financial records for the 1995 and 1996 years by the CPA firm of Hamilton and Associates. As indicated in the audit, the firm examined evidence supporting the amounts in the financial statements and assessed the accounting principles used. The audit report showed no irregularities and indicated that the financial records were in conformity with generally accepted accounting principles.

As indicated in the audit and OMPAC'S financial records, individual contributions for the 1996 year were received from 626 OMPAC members for a total amount of \$78,635. Campaign contributions were made to state political candidates in the amount of \$25,600 and to federal political candidates in the amount of \$5,000.

For the 1997 year, there were 334 OMPAC members contributing a total of \$42,230. Contributions to state political candidates totaled \$67,650, which included \$16,250 for 1996 contributions never received by the candidates and re-issued during the 1997 year. All contributions made to federal political candidates for the 1997 year were made directly by AMPAC.

A comprehensive report which includes details of political contributions made during 1996, 1997 and 1998, as well as copies of the OMPAC audit, will be available to all OMPAC members at the OMPAC Annual Membership Meeting to be held Saturday, April 25th at 1:00 p.m. at the Oklahoma City Marriott.

Review of 1998 Activities

The Oklahoma Medical Political Action Committee is in the process of soliciting members and funds for election year 1998. It is important to re-emphasize to the OSMA membership the importance of joining OMPAC in 1998, as OMPAC will be making contributions

to many political races which will have a direct influence on organized medicine's future. The OSMA JOURNAL will print a list of all OMPAC contributors, and this list will be updated with each issue.

Mrs. Kathy Musson, OSMA Associate Director was assigned the responsibilities for in-house government relations and Director of OMPAC as of February, 1998 and plans to work with the OMPAC Board and Membership Committee to further expand participation in OMPAC. In March, Mrs. Musson attended a Federal Election Commission Regional Conference in Denver on campaign finance laws for corporations and their political action committees and plans to review rules from the Oklahoma Ethics Commissions to increase understanding of those rules and to assure OMPAC and OSMA compliance. In addition, representatives from AMPAC will be coming to OSMA headquarters during May to meet with Mrs. Musson and Brain Foy, OSMA Executive Director to identify opportunities for support from AMPAC. OSMA representatives plan to develop better communication with AMPAC in order to provide increased input for control over OMPAC contributions submitted to AMPAC.

Due to stricter rules by the Oklahoma Ethics Commission, OMPAC has had to make changes in how members are solicited. A separate OMPAC solicitation envelope was mailed to each physician's office with their 1998 OSMA dues statements in late fall of 1997. Another solicitation letter to the OSMA membership was mailed in January; OSMA Alliance members received a letter from the Alliance OMPAC Chair in February; and four more mailings targeting specific groups of physicians and past OMPAC members have been mailed during the first quarter of 1998. Through AMPAC'S efforts, another solicitation will be mailed in May to all OSMA members who have not yet contributed. The OSMA'S contract public relations firm, Public Strategies, has been helpful in preparing member solicitations this year. OMPAC now has the capability of accepting credit card

contributions via a personal MasterCard/Visa.

The OMPAC Bylaws subcommittee met this year and made proposed changes in the OMPAC Bylaws, which have been mailed to all OMPAC members. These changes will be voted on by the OMPAC Board of Directors at its meeting on April 25. It is the desire of the OMPAC Board of Directors to include all sustaining members in future decision-making; therefore one of the major changes in the Bylaws will allow sustaining OMPAC members to vote on Bylaws changes in the future. Immediately following the board meeting, the OMPAC Annual Membership Meeting will be held.

As indicated in the following financial report, for the first quarter of 1998, there were a total of 232 OMPAC members who contributed \$32,585. Contributions to state political campaigns during the first quarter of 1998 totaled \$5,000. AMPAC made a \$1000 contribution to a federal political candidate during the first quarter of 1998.

Political Action Committee

(continued)

OMPAC

Financial/Membership Report

1998 1st Quarter

(As of March 31, 1998)

Financial

1997 Carryover Balance \$13,321.32*

Total Contributions

Deposited in 1998 25,450.00

Subtotal \$38,771.32

Less Dues paid

to AMPAC 6,150.00

Less Administrative

Expenses 138.70

Less Contributions

to Candidates in 1998 5,000.00

Subtotal \$11,288.70

Total Cash on Hand \$27,482.62

* Included in the 1997 carryover balance is \$7,935 which was collected at the end of 1997 for 1998 memberships; making the total contributions for 1998 \$32,585.

Membership

Alliance Members 29

OSMA Staff Members 3

Physician Members 200

Total 1998 Membership
as of 3/31/98 232

Conclusion

As 1998 is an election year, the OMPAC Board will meet several times in the coming months to evaluate voting records and make contribution decisions regarding the various races in Oklahoma.

The OMPAC Board will once again be basing its support for candidates on an objective measure of each candidate's stand on medical issues important to the OSMA. A given candidate's support of the issues important to the OSMA members will be measured by voting records for incumbents and questionnaires of non-incumbents.

On behalf of the OMPAC Board of Directors, I would like to encourage each physician and Alliance member to

join OMPAC for 1998. Remember, your support, along with the support of your colleagues, will enable organized medicine to remain a strong, viable force in the elective and legislative process.

Respectfully Submitted,

Jeffrey Shaver, MD, Chairman

Jay A. Gregory, MD, Vice-Chairman

Mrs. Sherry Strebel, Secretary/Treasurer

Jack J. Beller, MD

Richard J. Boatsman, MD

Matthew J. Britt, MD

Chester L. Bynum, MD

J. Chris Carey, MD

Elaine N. Davis, MD

Jodie L. Edge, MD

Warren V. Filley, MD

James D. Funnell, MD

David L. Harper, MD

Joe S. Hester, MD

C. Wallace Hooser, MD

Douglas C. Hubner, MD

Mrs. Barbara Jett

Charles L. Lackey, MD

Perry A. Lambird, MD

Gary Massad, MD

Gary L. Paddock, MD

Mukesh T. Parekh, MD

Greg Ratliff, MD

Lee E. Schoeffler, MD

David M. Selby, MD

Bruce L. Storms, MD

Gary F. Strebel, MD

J. Ross Vanhooser, MD

Richard B. Winters, MD

REPORT OF THE OSMA FEDERAL LOBBYIST, JOHN H. MONTGOMERY

To: OSMA Board of Trustees

Subject: Washington D.C. Activities
Summary

This report is provided to highlight the activities of our firm with regards to the Governmental Activities Program of the Oklahoma State Medical Association over the past year.

General Activities

The following is a brief review of the routine activities undertaken:

- This year we strengthened our sys-

temic relationships with the Oklahoma Congressional delegation and staff. Each office, with the staff person designated, is now sent a copy of the OSMA Week in Review which highlights the status of both state and federal legislative issues. Washington Congressional staff have expressed appreciation for knowing about state level legislation and for being able to maintain an updated file on OSMA activities.

- On another front we have improved our coordination with AMA through the receipt of the AMA weekly primer which allows us to carry AMA issues to our delegation in a more timely fashion. We are also better coordinating the expenditure of AMPAC funds to coincide with fundraising events where we respond to specific invitations from the delegation.

- We have provided a daily review of health and physician issues occurring in Congress. Information and selected articles are sent routinely to OSMA for use in policy setting and in preparation of the Weekly and Monthly Reports.

- Information was provided on the position of our Congressional delegation on health care issues. We also provided Congressional staff with written information on OSMA and AMA issues. Visits were made with staff and the Members to reconcile differences and questions.

- We worked with the delegation on obtaining support from the Oklahoma physicians for specific fundraising events as well as with the use of AMPAC and OMPAC contributions. Oklahoma doctors provide considerable political support which needs to be recognized.

- Provided a first contact for the delegation to express either their positive or negative responses to OSMA or AMA requests. Frequently calls start with "There's something that the Docs need to know . . .". Requests and responses are worked out with the OSMA staff.

- Provided oversight of the progress of our legislative initiatives with routine reports to OSMA staff and maintaining accessibility to Oklahoma physicians who need answers to questions or information on legislation. Also we help any

Oklahoma physician with a specific legislative problem or Congressional appointment.

Implementation of OSMA Objectives

Our strategy continues to be to maintain routine contact with the primary health legislative assistants in each of our Congressional offices and be sure that OSMA priorities are pursued as legislation is considered. We utilize these contacts in order to allow us to explain more fully the reasons behind our specific priorities in pending federal legislation.

During the consideration of the Balanced Budget Act of 1997 there was frequent communication with these staff members on exactly which elements in the White House, the House of Representatives and the Senate proposals were OSMA priorities. Some issues such as no competitive bidding and support for MSA were ones we have pressed in the past. Others such as the no gag rule, open enrollment for HMOs and the single conversion factor were issues which required new explanations of how these would impact Oklahoma physicians. Dr. Boatsman and Dr. Selby personally visited with Senator Nickles with other Members of the delegation and with their staffs on these same issues. The Washington Office role was primarily to brief staff and the Congressional delegation before these meetings and to follow up afterward.

The result of these efforts and the other contacts by Oklahoma physicians (Senator Nickles events in Oklahoma City, Tulsa and Enid) put us in a good

position when the final bill was agreed upon. In general, the law is now more sensitive to physician priorities than any of the initial bills that were originally submitted. Most of these changes were reported back to us by Senator Nickles and Congressman Watkins in response to our requests.

There are two other requests that we continue to make that we believe will eventually be passed by Congress. The first is the limitation on antitrust restrictions that affect the ability of Oklahoma physicians to join together to form Physician Service Organizations (PSO) and the second is to pass a broad tort reform bill.

Recently our priority has been to work with our Congressional delegation in its consideration of the Patient Access to Responsible Care Act (PARCA). Our activities have included meetings with staff and members in each office to explain our position of favoring an inclusion of the provisions similar to those in the Oklahoma Fairness in Managed Care Act. On the other hand we do not support inclusion of an "any willing provider" provision as a trade off for including other physician favored provisions. One recent activity was a meeting with Senator Nickles and his Senate Leadership staff with Dr. Boatsman and the President of AMA to discuss PARCA. Senator Nickles warned that provisions adverse to physicians are as likely to end up in a final PARCA bill if it is not carefully written and limited in scope. The development of this bill will be a major objective of our efforts over the rest of the year and we are working with AMA to answer Senator Nickles' questions.

One other major objective is to overturn the recently passed Medicare restrictions on private contracting by physicians. During one visit we were able to have Senator Nickles become an early co-sponsor for Senator Kyl's (R-AZ) S. 1194 which would eliminate the provision in the Balanced Budget Act of 1997 which disallows physicians from participating in Medicare for two years if they privately contract with a Medicare patient for Medicare covered services. This provision made this bill a priority for the Senate Republican leadership. In addition, we have had a meeting with our House delegation to explain the specific impact on Oklahoma and have them sign on H.R. 2497 (Archer R-TX and Thomas R-CA).

Conclusion

Over the years we have been able to obtain broad support on national health legislation from our Congressional delegation on OSMA priorities (hospital cost containment, Clinton health care proposal, etc.) as well as obtain specific legislative relief (single state reimbursement, laboratory certification reform for smaller facilities, etc.). With the issues of managed care legislation, private contracting of Medicare and the work of the National Bipartisan Commission on the Future of Medicare coming up next year we believe that our efforts to stay close will allow OSMA to work hand in glove with our elected representatives to be sure Oklahoma physician issues are favorably resolved.

RESOLUTIONS



The Putnam City North High School Show Choir Performed at Opening Session.

(NOT ADOPTED)

Resolution 1: "No Confidence" in Reviews by Oklahoma Foundation for Medical Quality, Inc.

(A-98)

Introduced by: Steven D. Jimerson,
MD

Referred to: Reference Committee III

Whereas, there are frequent conflicts between the physicians in Oklahoma with findings of The Oklahoma Foundation for Medical Quality, Inc.; and

Whereas, The Oklahoma Foundation for Medical Quality, Inc. issues sanctions against Physicians who are in fact following established practice guidelines; and

Whereas, reasons for the sanctions are not satisfactorily communicated to the sanctioned Physician by The Oklahoma Foundation for Medical Quality, Inc.; and

Whereas, appealing these sanctions requires an inordinate amount of time and effort on the part of the sanctioned Physician in order to clear his record; therefore be it

Resolved, that the Oklahoma State Medical Association issues a vote of "No Confidence" in the quality, accuracy, or

reliability of reviews provided by The Oklahoma Foundation for Medical Quality, Inc.

(ADOPTED AS AMENDED)

Resolution 2: School and Day Care Immunization Law Changes

(A-98)

Introduced by: Council on Public and Mental Health

Referred to: Reference Committee II

Whereas, immunization is the most effective means of preventing vaccine-preventable diseases, and children in school and day care settings are especially vulnerable to contracting vaccine-preventable diseases; and

Whereas, Oklahoma ranked first in the United States in the rate of hepatitis A cases in 1996; and

Whereas, hepatitis B vaccine is required for school children by the State School Immunization Law, but is not required for children in day care centers and homes; and

Whereas, varicella (i.e. chickenpox) is a highly contagious disease, and more

than 90% of cases occur in persons less than 15 years of age; now therefore be it

Resolved, That the Oklahoma State Medical Association (OSMA) endorses requiring two doses of hepatitis A vaccine for children entering seventh grade in the fall of 1998. Each year thereafter the requirement shall be extended one grade level so that in the school year beginning in 2003, children in grades seven through twelve shall be required to have the two doses of vaccine; and be it

Resolved, That OSMA endorses requiring two doses of Hepatitis A vaccine for children entering kindergarten in the fall of 1998. Each year thereafter the requirement shall be extended one grade level so that in the school year beginning in ~~2010~~ 2004, all children entering school shall be required to have the two doses of vaccine; and be it

Resolved, That OSMA endorses requiring one dose of varicella vaccine or a doctor's statement of a history of the disease for children entering kindergarten in the fall of 1999. Each year thereafter the requirement shall be extended one grade level so that in the school year beginning in 2011, all children entering school shall be required to have the vaccine or a doctor's statement of a history of the disease; and be it

Further Resolved, That the OSMA endorses requiring day care centers and homes to use the recommendations of the Advisory Committee on Immunization Practices as the rules and regulations governing the specific number of vaccine doses required and frequency of their administration to attend day care.

Resolutions (continued)



Ray V. McIntyre, editor-in-chief of the Journal, presents Christian C. Sieck the Mark R. Johnson award. Sieck's article, "Vaginal Birth After Cesarean Section: A Comparison of Rural and Metropolitan Rates in Oklahoma," published in Vol. 90, No. 8 of the Journal.

(ADOPTED)

Resolution 3: Collective Bargaining for Healthcare Professionals

(A-98)

Introduced by: Cleveland County Medical Society

Referred to: Reference Committee III

Whereas, Managed Care Organizations and other insurers currently have an unreasonable negotiating power with Physicians and other healthcare providers by the mere market power and control of patients that currently exist; and

Whereas, Physicians currently are not permitted to collectively bargain with managed care organizations unless the Physicians are financially integrated; and

Whereas, this has resulted in unreasonable vesting of power in managed care companies to the detriment of patient care by using patients as a bargaining chip in negotiating contracts with the virtually powerless physicians; therefore be it

Resolved, the Oklahoma State Medical Association support and carry to the American Medical Association the recommendation that we support the "Health-

Care Coalition Act" proposed by Representative Tom Campbell of California which states: "Any group of healthcare professionals, negotiating with a Health Maintenance Organization, insurance, or other payor, shall, in connection with such negotiations, be entitled to the same treatment under the anti trust laws accorded to members of a bargaining unit recognized under the National Labor Relations Act."

(ADOPTED)

Resolution 4: Next of Kin Granting Permission for Do Not Resuscitate Order

(A-98)

Introduced by: Cleveland McClain

County Medical Society

Referred to: Reference Committee III

Whereas, current Oklahoma statutes permit the issuance of a do-not resuscitate order only when 1 of 5 situations exists:

1. The patient has advised his Attending Physician that he does not consent to CPR
2. An incapacitated patient's legally appointed representative (i.e. a legally appointed guardian, an attorney-in-fact for healthcare decisions, or a healthcare proxy named in the patient's advanced directive for healthcare) has notified the patient's attending physician that the patient does not consent to CPR.
3. An Attending Physician of an incapacitated patient without a representative (as defined above) knows by clear and convincing evidence that the patient when competent decided that he would not consent to CPR.
4. The patient or his legally appointed representative has signed a form prescribed by statute to consent to the DNR order or
5. The patient has signed an advanced directive for healthcare especially dictating that life sustaining treatments not be performed in the event of a cardiac or respiratory arrest

Whereas, it is the common practice in the medical profession for the next-

of-kin in consultation with the patient's physician to issue a do-not-resuscitate order request; and

Whereas, the next-of-kin (in a legally prescribed progression) has the legal ability to give permission for surgery, other medical treatment, and even experimental treatment but does not under current law have the legal ability to carry out a do-not-resuscitate request; therefore be it

Resolved, that the Oklahoma State Medical Association support through whatever legislative efforts needed to give the next-of-kin (in the legally prescribed progression) the ability to issue a do-not-resuscitate request in consultation with the patient's physician.

(NOT ADOPTED)

Resolution 5: AMA Delegation Expenses

(A-98)

Introduced by: Oklahoma County Medical Society

Referred to: Reference Committee I

Whereas, The expenses of the AMA Delegation have increased significantly during the past year; and

Whereas, An increasing percentage of OSMA dues revenue is expended for AMA Delegation expenses; and

Whereas, The proposal to pay for attendance of the OSMA President at the AMA Annual and Interim meetings will increase the Delegation's expenses by a per diem of \$300 per day, travel expense and the additional expense of occasional meals; and

Whereas, Many members may not agree with such recent increases in AMA Delegation expenditures; now therefore be it

Resolved, That the OSMA pay actual reasonable charges incurred by the President when attending the AMA Annual and Interim meetings; and be it further

Resolved, That the AMA Delegation expenses exceed no more than 10% of dues revenue in any given year; and be it further

Resolved, That the AMA Delegation's per diem be all inclusive as intended.

(NOT ADOPTED)

Resolution 6: AMA Delegate Qualifications

(A-98)

Introduced by: Oklahoma County

Medical Society

Referred to: Reference Committee I

Whereas, an objective of organized medicine is to be more representative of its members; and

Whereas, organized medicine aspires to be more responsive to its members; and

Whereas, according to AMA demographic, the average age of AMA Delegates is increasing while the average age of AMA members is considerably younger; and

Whereas, AMA membership is in decline, and a fair representation among Delegates and Alternate Delegates may improve the credibility and representation of the AMA and enhance its membership; and

Whereas, the OSMA Bylaws currently require an AMA Delegate candidate to have served at least one term as an AMA Alternate Delegate or have served as an officer of the Association; now therefore be it

Resolved, that the OSMA Bylaws be changed to allow any member in good standing to run for the position of AMA Delegate.

(NOT ADOPTED)

Resolution 7: OSMA Trustee Representation

(A-98)

Introduced by: Oklahoma County Medical Society

Referred to: Reference Committee I

Whereas, there are currently fourteen authorized OSMA Trustee Districts; and

Whereas, the OSMA Bylaws allot to each District one Trustee for every 500 physician-members or fraction thereof; and

Whereas, the membership of the Oklahoma County Medical Society continues to grow each year, and the Oklahoma County Medical Society membership is currently under represented; and

Whereas, the OSMA seeks to be more fairly representative and responsive to its members; now therefore be it

Resolved, that the number of physicians represented by each Trustee are equitably distributed among the entire Association; and

Resolved, that the Bylaws be changed to reduce the number of physicians represented in each District to one Trustee for every 300 physician-members or fraction thereof.

(NOT ADOPTED)

Resolution 8: OSMA Delegate Representation

(A-98)

Introduced by: Oklahoma County

Medical Society

Referred to: Reference Committee I

Whereas, the OSMA Bylaws currently state that one Delegate and one Alternate Delegate shall be elected by component societies for each 25 Active and Active Limited Dues Members residing in the State of Oklahoma, or fraction thereof; and

Whereas, the membership of the Oklahoma County Medical Society continues to grow each year, and the Oklahoma County Medical Society membership is currently under represented; and

Whereas, the OSMA seeks to be more fairly representative and responsive to its members; now therefore be it

Resolved, that the number of physicians represented by each Delegate are equitably distributed among the entire Association; and

Resolved, that the Bylaws be revised to allow component societies to elect one Delegate and one Alternate Delegate, for a minimum of 20 and no more than 25, Active and Active Limited Dues Members residing in the State of Oklahoma, or fraction thereof.

(NOT ADOPTED)

Resolution 9: AMA Delegate and Alternate Delegate Elections

(A-98)

Introduced by: Oklahoma County Medical Society

Referred to: Reference Committee I

Whereas, the OSMA Bylaws currently state that all candidates for AMA Delegate and Alternate Delegate shall run at-large; and

Whereas, the OSMA Bylaws currently state that each member of the House of Delegates shall vote for one candidate for each of the Delegate and Alternate Delegate positions up for election; and

Whereas, this requirement compels each member of the House of Delegates to vote for each position in that an incomplete ballot will not be counted; now therefore be it

Resolved, that the Bylaws be revised to remove the current restrictions and allow each ballot to be counted regardless of the number of votes omitted.



William S. Harrison, whose photographs have graced several covers of the Journal, is presented the "Best Cover Photograph Award" by Ray V. McIntyre, editor-in-chief of the Journal. The winning photo was of a magnolia blossom, which appeared on the cover of the Vol. 90, No. 5 issue of the Journal.

Resolutions (continued)



W.F. Phelps presents Kent T. King with the Wyeth Ayerst Community Service Award.

(ADOPTED)

Resolution 10: Rescinding Statement of Intent With AMAP

(A-98)

Introduced by: Tulsa County Medical Society
Referred to: Reference Committee II

Whereas, the Oklahoma State Medical Association continues to support the American Medical Association by remaining a "Unified State"; and

Whereas, the American Medical Association is attempting to develop the AMAP program which, if implemented in Oklahoma, would compete with the OSMA credentialing service, OCVO; and

Whereas, the AMA House of Delegates has required the AMA Board of Trustees to review its policy with regard to requiring AMAP to cooperate with state medical associations; and

Whereas, in July 1997, OSMA signed a Statement of Intent with the AMA that prevents OSMA from marketing any services that conflict with AMAP; now therefore be it

Resolved, that the OSMA House of Delegates rescind the Statement of Intent with AMAP; and be it further

Resolved, that the American Medical Association shall not attempt to compete with any programs currently in opera-

tion or planned by the Oklahoma State Medical Association.

(ADOPTED AS AMENDED)

Resolution 11: OSMA Assume Full Operations of OCVO

(A-98)

Introduced by: Tulsa County Medical Society
Referred to: Reference Committee II

Whereas, Oklahoma Centralized Verification Organization (OCVO), was established in 1988, to provide better services for Oklahoma physicians; and

Whereas, since, 1996, the Oklahoma State Medical Association (OSMA), has invested in OCVO; and

Whereas, OSMA is in a more advantageous position to effectively develop a state-wide credentialing service, owned and operated by Oklahoma physicians; and

Whereas, OSMA is better able to market OCVO across the state of Oklahoma; now therefore be it

Resolved, that the Oklahoma State Medical Association assume full operational responsibilities of the Oklahoma Centralized Verification Organization; and therefore be it

Resolved, that the OSMA House of Delegates accept the recommendation of the Board of Trustees to form an Ad Hoc Committee to investigate assumption of OCVO ownership from Tulsa County Medical Society and report back to the OSMA Board of Trustees at the next scheduled meeting for a final decision to accept or reject.

** Fiscal Note: Current OCVO budget is approximately \$430,000 plus additional expenses necessary for marketing*

(ADOPTED)

Resolution 12: Supporting Legislation That Would Require a Standard Form by HMO's and Insurance Companies From Physicians

(A-98)

Introduced by: Tulsa County Medical Society

Referred to: Reference Committee III

Whereas, physicians who are contracted with several HMO's managed care organizations and other insurance entities, must complete a contact and/or referral form for reimbursement for each company for whom they are contracted; and

Whereas, this results in physicians and their staff having to complete numerous forms; and

Whereas, the cost to patients and the general public has been immense for this duplicative effort; now therefore be it

Resolved, that the Board of Trustees of the Oklahoma State Medical Association consider supporting legislation that would require HMO's and Insurance companies to develop and utilize a standard form for physicians; and be it also

Resolved, that the OSMA Board of Trustees refer this issue to the Council on State Legislation and Regulation for review and report no later than the fall meeting of the Board; and be it also

Resolved, that based upon the Committee's report, the Board shall consider possible future action.

(NOT ADOPTED)

Resolution 13: Questioning of Medical School Applicants

(A-98)

Introduced by: Tulsa County Medical Society

Referred to: Reference Committee II

Whereas, the subject of elective abortion is, by its very nature, emotionally charged and divisive; and

Whereas, the personal beliefs of medical school applicants regarding abortion are likely to have no predictive value in terms of probable success in acquiring and utilizing medical knowledge; and

Whereas, questions designed to identify the abortion views of the applicants,

including both direct and hypothetical questions, have the potential to discriminate against applicants based on whether answers are consonant with or antagonistic to the abortion position of the interviewers; and

Whereas, the potential discrimination may be hidden behind a variety of subjective explanations; now therefore be it

Resolved, that the questioning of applicants by medical school interviewers in regard to their personal beliefs on abortion or the application of those views to hypothetical situations has a potential for discrimination based on abortion views and should be strongly discouraged; and be it further

Resolved, that the OSMA Board of Trustees communicate this concern to the University of Oklahoma College of Medicine.

(REFERRED TO THE BOARD OF TRUSTEES)

Resolution 14: Partial Birth Abortion

(Definition: any procedure in which a doctor partially vaginally delivers a living fetus before killing the fetus and completing the delivery).

(A-98)

Introduced by: David S. Sholl, M.D.
Referred to: Reference Committee III

Whereas, partial birth abortion is a procedure which is not ever specifically required to save the life of a mother; and

Whereas, this procedure can be associated with significant health risks to the mother, including laceration of the cervix or lower uterine segment by errant scissors or shards of bone; and

Whereas, the only logical purpose for its use is to assure that an infant will not survive an attempted abortion; and

Whereas, legislation banning partial birth abortion has been passed by both the U.S. Senate and the U.S. House of Representatives; and

Whereas, the AMA Interim House of Delegates, 1997, passed a resolution in support of Congress in its ban of partial birth abortion; now therefore be it

Resolved, that this assembly condemns partial birth abortion as an indefensible

act both medically and ethically; and be it further

Resolved, that OSMA members should be encouraged to be vocal in support of legislation to make this procedure illegal in the State of Oklahoma.

(ADOPTED AS AMENDED)

Resolution 15: State and Federal Tax Codes Change

(A-98)

Introduced by: Tulsa County Medical Society
Referred to: Reference Committee II

Whereas, health benefits provided by employers are tax free and such insurance taken out in any other way is not; and

Whereas, the effect of this aspect of the U.S. tax code is to force workers to accept whatever health packages their employers offer; and

Whereas, since insurers are answerable to employers, rather than to the people who actually receive medical services; and

Whereas, equalizing the tax code, so that people could purchase tax deductible health insurance as individuals or through organizations other than employers would force HMOs to compete on quality as well as price and such change would strengthen the patient-physicians relationship; now therefore be it

~~*Resolved*, that the OSMA and AMA work to change the state and federal tax codes to allow all health insurance premiums to be tax-free now therefore be it;~~

Resolved, that the Oklahoma State Medical Association work with the State Legislature to change the current State Tax Code to allow all individuals to deduct the cost of all health insurance premiums from gross income before arriving at their adjusted gross income; therefore be it

Resolved, That the American Medical Association work with the Federal Government to change the current Federal Tax Code to allow all individuals to deduct the cost of all health insurance premiums from gross income before arriving at their adjusted gross income.

(ADOPTED)

Resolution 16: Forum for Implementation of Adopted Resolutions

(A-98)

Introduced by: Marcel Binstock
Referred to: Reference Committee II

Whereas, the drafting, debating and ratification of resolutions is properly the function of the House of Delegates; and

Whereas, the implementation of resolutions fall rightfully within the purview of the OSMA leadership; and

Whereas, by oversight or design, some House of Delegates' adopted resolutions have in the past succumbed to executive inertia; and

Whereas, such lapses, however they occur, thwart the will of the majority of the House of Delegates and are a hindrance to the democratic precepts on which the OSMA is founded; now therefore be it

Resolved, that House of Delegates' adopted resolutions calling for a specified course of action but which have not been duly implemented, be granted a forum by way of publication in the OSMA Journal attended by explanatory comments from the maker(s) of the resolution.



State Rep. Betty Boyd receives the Don J. Blair Friend of Medicine Award from Edward N. Brondt Jr.

Resolutions (continued)



Jay A. Gregory, chair of the AMA Delegation, presents Sara R. DePersia with an award for outstanding services as a Delegate and Alternate Delegate to the AMA.

(ADOPTED AS AMENDED)

Resolution: 17: Fixed Reimbursement to Physicians

(A-98)

Introduced by: David M. Nierenberg
Referred to: Reference Committee II

Whereas, Medicare laws long ago terminated reimbursements to physicians for interpretative and administrative lab services; and

Whereas, private payers, such as insurance companies and managed care organizations, may attempt to independently cease reimbursement of physicians for these services; and

Whereas, these services are an important and integral part of a physician's caring for the patient; now therefore be it

Resolved, that the OSMA House of Delegates encourage the AMA to support a fixed reimbursement to physicians for interpretation and administration services related to laboratory testing results for patients, without regard to the number of tests performed for an individual patient.

(NOT ADOPTED)

Resolution 18: AMA Delegate Term Limits

(A-98)

Introduced by: Oklahoma County Medical Society
Referred to: Reference Committee I

Whereas, the House of Delegates shall elect Delegates and Alternate Delegates to the House of Delegates of the American Medical Association; and

Whereas, there are no term limits for Delegates to the House of Delegates of the American Medical Association; and

Whereas, the Bylaws specify that Alternate Delegates to the House of Delegates of the American Medical Association may serve no more than three consecutive terms in that position; now therefore be it

Resolved, that the OSMA Bylaws be revised to set term limits for Delegates to the House of Delegates of the American Medical Association; and

Resolved, that Delegates' terms be limited to no more than three consecutive terms in that position.

(ADOPTED)

Resolution 19: AMA Public Relations Campaign

(A-98)

Introduced by: Oklahoma County Medical Society
Referred to: Reference Committee II

Whereas, there currently exists a tremendous negative perception of Doctors of Medicine and Osteopathy by the public and the legislatures throughout the United States; and

Whereas, if this negative perception continues, it could erode the public's confidence in Doctors of Medicine and Osteopathy; now therefore be it

Resolved, that the American Medical Association implement a public relations campaign designed to improve the public's perception of Doctors of Medicine and Osteopathy.

(ADOPTED)

Resolution 20: AMA Task Force

(A-98)

Introduced by: Oklahoma County Medical Society
Referred to: Reference Committee III

Whereas, health care issues are increasingly being decided by state legislatures; and

Whereas, health care issues being considered by state legislatures suddenly arise that will affect the health care of the entire nation; now therefore be it

Resolved, that the American Medical Association develop a task force which will furnish field representatives to all states to respond to health care issues in crisis.

(ADOPTED SUBSTITUTE RESOLUTION)

Resolution 21: \$25 Assessment Fee for Public Information Program Public Awareness Campaign

(A-98)

Introduced by: Glen P. Dewberry, Jr., M.D.
Referred to: Reference Committee III

Whereas, The legislature has established a precedent that they are able to determine the scope of practice of medicine in Oklahoma without regard to training or qualifications; and

Whereas, The legislature has established a precedent that they are able to prevent patients from seeking ambulatory care at the facility of their choice instead requiring them to seek care only at facilities that receive at least 45% of their income from providing Medicaid/Medicare services which allows these facilities to shift the cost of providing those services to those private paying patients; and

Whereas, The legislature's inadequate reimbursement for Medicaid services will place an ever-increasing burden on the private sector, because of this strategy of cost shifting, as Medicaid is expanded by expanding the SoonerCare program; and

Whereas, The OSMA has expressed concerns about quality and access prob-

lems that are currently characterizing the SoonerCare program; and

Whereas, Quality and access problems have the potential to intensify as more and more of the Medicaid program is shifted into the managed care program, SoonerCare and as more and more population groups are added to SoonerCare; and

Whereas, There has been a significant lack of physician participation in the rural SoonerCare program because of problems with the program and there is a potential of decreasing physician participation in the urban SoonerCare program, as well, for similar reasons; and

Whereas, There is the potential for the legislature to pass legislation giving expanded prescribing privileges to non-M.D.'s and non-D.O.'s in order to have more providers for the SoonerCare program which would again, intensify the problems with decreased quality of care in the health care delivery system in Oklahoma; and

Whereas, The legislature received a five to sixteen million dollar "refund" from the SoonerCare program last year which was then placed in the legislature's general fund for use in projects other than health care which means that because of the current structure of SoonerCare, the legislature is able to arbitrarily decrease the amount of money spent on Medicaid, forcing providers to shift the cost to private paying patients, and then receive back from SoonerCare that "savings" as a refund that goes into their general fund, which essentially makes SoonerCare a new type of financial resource generating mechanism for the legislature which is important to them because of their inability to raise taxes since the passage of SQ 640; and

Whereas, This structure creates very inappropriate conflict of interest on the part of the Legislature to decrease funding more and more which has a greater and greater negative impact on quality and access of care so they can receive larger refunds every year; and

Whereas, The Legislature is promoting adding people to SoonerCare who are in the economic level of up to 250% of the federal poverty level, which for a family of four is \$40,125 which would place about

one third of Oklahomans in this program despite the very serious deficiencies in the program; and

Whereas, The legislative leadership has refused to convene the SoonerCare interim study which was authorized in 1997 which would allow a public dialogue about the issues that have been delineated; and

Whereas, Oklahomans are largely unaware of the serious threat to the quality of health care in our state as a result of these legislative actions; therefore be it

~~*Resolved*, that the OSMA authorizes a \$25 per physician assessment to finance a public information program that will be coordinated by the Council on Medical Services in order to increase public awareness of the pertinent issues related to the SoonerCare program that are causing very serious problems with quality and access to care and which threaten to erode quality and access to care for more and more Oklahomans as this program continues; and be it further~~

~~*Resolved*, that the public information program start immediately in order to adequately inform the public prior to the state legislative elections in November in order to allow Oklahoma voters to express their will regarding preserving quality health care in this state.~~

Resolved, that the OSMA undertake a public information campaign in order to increase public awareness of the threats to health care in Oklahoma, in particular issues related to the Sooner Care Program that are causing very serious problems with quality and access to care and which threaten to erode quality and access to care for more and more Oklahomans as this program continues, to be financed as deemed necessary by the OSMA Board of Trustees.

(ADOPTED AS AMENDED)

Resolution 22: Physicians in Congress

(A-98)

Introduced by: East Central Oklahoma Medical Society
Referred to: Reference Committee III

Whereas, the concept of a congress of representation of and by the people

was the intent of our founding fathers; and

Whereas, participation by physicians at the federal level has been very minimal at best due to ethics rules and other impediments; and

Whereas, Congressman Tom Coburn recently endured a lengthy battle with the Congressional Ethics Committee and successfully defended himself before said committee and therefore, has earned his right to continue his practice of medicine while a member of Congress; and

Whereas, the American Medical Association and the Oklahoma State Medical Association were not visible during Dr. Coburn's turmoil; now therefore be it

Resolved, that the Oklahoma State Medical Association adopt as standing policy that any physician who runs a successful campaign and is elected to public office either at the state or federal level



Donald M. Baldwin receives an early registration award.



Nancy Dickey, then AMA president-elect, addresses Meeting attendees.

shall and will be supported by the Oklahoma State Medical Association in whatever capacity appropriate when such issues arise; and be it further

Resolved, that the Oklahoma State Medical Association Delegation to the American Medical Association carry to the annual meeting of the House of Delegates this resolution instructing the American Medical Association to likewise give full support in whatever measure to those physicians serving in Congress when such issues arise; and be it further

Resolved, that the American Medical Association go on record as stating that the practice of medicine by a sitting member of Congress does not constitute a conflict of interest between said physician and his or her patients or any third party payers.

Resolved, that the Oklahoma State Medical Association delegation to the AMA further recommends that the American Medical Association go on record as stating that the practice of medicine by a sitting member of Congress does not by definition constitute a conflict of interest between said physician and his or her patients or any third party payers.

(ADOPTED)

Resolution 23: Legislation to Abolish ERISA Protection for Managed Care Plans

(A-98)

Introduced by: East Central Oklahoma Medical Society
Referred to: Reference Committee III

Whereas, managed health care plans and HMO's have significant decision making powers concerning the medical care of their covered patients; and

Whereas, these same medical plans have decision making power concerning if patients are referred to appropriate specialists or hospitalized; and

Whereas, these plans are provided undue protection by the Federal ERISA laws and are not held accountable for their decisions or actions; now therefore be it

Resolved, that the Oklahoma State Medical Association draft and help introduce legislation that would abolish ERISA protection now afforded these managed care plans so that injured parties could seek and receive appropriate compensation when decisions by managed care plans adversely affect the health of the enrollee; and be it further

Resolved, that this resolution be forwarded to the AMA for consideration and presentation to the AMA Annual meeting 1998.

(ADOPTED AS AMENDED)

Late Resolution 24: Discriminatory Practice Concerning Patient Verification

(A-98)

Introduced by: East Central Oklahoma Medical Society
Referred to: Reference Committee III

Whereas, the Oklahoma Health Care Authority leases machines to our members for the purpose of verification of current DHS patient status; and

Whereas, other vendors (i.e. grocery stores) are allowed to use pre-existing credit card machines for similar verification in place of the above mentioned leased machines; and

Whereas, the Health Care Authority charges an additional \$.20 per inquiry from our members for each said verifications; and

Whereas, other vendors (i.e. grocery stores) are charged only \$.03 per inquiry for each said verification; consequently be it

Resolved, that the Oklahoma State Medical Association seek appropriate explanation and redress for this discriminatory practice. the discriminatory practice and use of verification of current DHS patient status.



David M. Selby presents an award to outgoing Chairman of the Board W.F. Phelps.

(ADOPTED AS AMENDED)

Resolution 25: Access to Sterile Needles and Syringes

(A-98)

Introduced by: Council of Public and Mental Health

Referred to: Reference Committee II

Whereas, according to the Oklahoma Department of Mental Health and Substance Abuse Services, approximately 27,210 Oklahomans are injection drug users (IDUs), and are at increased risk of spreading HIV and Sexually Transmitted Diseases (STDs) to others; and

Whereas, new IDUs, either directly or indirectly, will comprise the 32% of newly acquired infections in Oklahoma; and

Whereas, females who are IDUs or sexual partners of IDUs account for the majority of HIV infection in females in Oklahoma; and 60% can be attributed either directly or indirectly to IDU; and

Whereas, adolescents who are IDUs or sexual partners of IDUs account for a large portion of HIV infection in females in Oklahoma; and 46% can be attributed either directly or indirectly to IDU; and

Whereas, multiple national and international studies have shown that hepatitis B and C infections are common in populations are increased risk of HIV,

with all three infections most often occurring in injection drug users; and

Whereas, HIV seroprevalence increased by 5% per year in 52 cities without Needle Exchange Programs (NEP), and decreased by 5.8% per year in 29 cities with NEPs, the average change in seroprevalence was 11% lower in cities with NEPs; and

Whereas, an impressive body of published literature demonstrates that NEPs show no infections, and thus eliminating the need for costly HIV medications; and

Whereas, NEPs have proven to be cost effective in reducing the number of new HIV infections, and thus eliminating the need for costly HIV medications; and

Whereas, the Consensus Development Conference Statement of the National Institutes of Health supports lifting legislative restriction on programs that offer access to sterile syringes because they constitute a major barrier to realizing the potential of a powerful tool in HIV prevention; and be it

Resolved, that the Oklahoma State Medical Association urges the Oklahoma health care professionals who educate the many publics about HIV prevention to seriously promote access to sterile needles and syringes as an effective public health measure that reduces HIV infections and their associated health and social costs; and be it

Resolved, that the OSMA urges the Oklahoma Legislature to repeal any legislation preventing access to sterile needles and syringes.

(ADOPTED)

Resolution 26: Universal Newborn Hearing Screening

(A-98)

Introduced by: Council on Public and Mental Health

Referred to: Reference Committee II

Whereas, using current technology, Universal Newborn Hearing Screening can quickly and efficiently identify all newborns with congenital hearing loss; and

Whereas, one of every 1000 infants is born deaf and five to seven in 1000 are born with mild to moderate hearing loss; and

Whereas, infants born with hearing loss can benefit from early intervention including hearing aids; and

Whereas, research indicates that children identified with hearing loss prior to six months and enrolled in appropriate intervention exhibit receptive and expressive language quotients significantly higher than those whose losses were identified after six months of age; and

Whereas, Universal Newborn Hearing Screening can identify at birth 100% of children born with hearing loss, as opposed to identification of approximately 50% with the current risk-register; and

Whereas, the cost of identifying infants' hearing loss at birth is a fraction of the anticipated cost of providing education and community services to persons whose hearing loss is found later; and

Whereas, the National Institutes of Health recommends that newborn hearing screening be implemented universally; and

Whereas, beginning in FY98 as part of the Maternal and Child Health Services Title V Block Grants Annual Report, states are required to annually report the number and percentages of infants screened for hearing loss; and

Whereas, the American Academy of Pediatrics approves the Joint Commit-

Resolutions (continued)

tee on Infant Hearing's goal of universal detection of hearing loss as early as possible; now therefore be it

Resolved, that the OSMA recommends that Universal Newborn Hearing Screening be provided to all Oklahoma infants prior to discharge from hospitals or birthing facilities.

(NOT ADOPTED)

Resolution 27: Loss of License

(A-98)

Introduced by: East Central Oklahoma Medical Society

Referred to: Reference Committee I

Resolved, It shall be the standing policy of the Oklahoma State Medical Association that any physician who uses his or her medical license to perpetrate a felony and is subsequently found guilty of having committed said felony shall automatically forfeit their medical license and therefore the right to practice medicine in the state of Oklahoma. Said suspension shall be for life. Implementation of this policy shall be retroactive for five (5) years from the date of adoption of this policy. For implementation purposes, the Oklahoma State Medical Association shall enter into immediate dialog with the State Board of Medical Examiners.

(ADOPTED AS AMENDED)

Late Resolution 28: Definition of "Medically Necessary"

(A-98)

Introduced by: Council on Medical Services

Referred to: Reference Committee II

Whereas, medical insurance carriers and managed care organizations frequently require a statement of "medical necessity" prior to authorizing or paying for medical evaluation or treatment of a patient; and

Whereas, there is no generally recognized guidelines for defining what is "medically necessary" regarding reimbursement for medical services; and

Whereas, there is a need to provide patients, physicians, and medical insurance carriers or management care organizations clear guidelines regarding what is "medically necessary"; therefore be it

Resolved, that the term "medical necessity" or "medically necessary" when used in reference to the evaluation and/or treatment of a patient by a medical doctor or doctor of osteopathy shall mean any evaluation provided by or at the direction of an M.D. or D.O., or treatment, which in the professional opinion of the M.D. or D.O. in consultation with and concurrence of the patient or his/her legal representative will provide functional, psychological, or health benefits to the patient; and be it further

Resolved, That screening, which is a term referring solely to examinations of asymptomatic, apparently healthy individuals with no signs or symptoms of disease, typically undertaken to provide the individual examined with reassurance of his/her good health, shall not be considered the examination of a symptomatic individual with signs or symptoms of disease for whom a process of diagnosis or treatment is being undertaken by his/her physician.

(ADOPTED AS AMENDED)

Resolution 29: MSS Delegate Representation

(A-98)

Introduced by: OSMA Medical Student Section

Referred to: Reference Committee I

Whereas, the Oklahoma State Medical Association Medical Student Section represents a student enrollment from the OU College of Medicine of 518, and the Tulsa College of Medicine of 66, with the potential representation of approximately 400 students from the Osteopathic College; and

Whereas, these medical students represent the future voice and ideas of organized medicine which will carry it into the next century and these students desire to have an active voice in the decisions affecting health care and their future profession; and

Whereas, the Medical Student Section feels it would be beneficial to the overall goals of the Oklahoma State Medical Association for medical students to have additional input and share in the decisions and discussions regarding those goals; and

Whereas, the OSMA Medical Student Section is not currently represented on the OSMA Board of Trustees and current OSMA bylaws limit the Medical Student Section to only one Delegate and one Alternate Delegate Representative to the OSMA House of Delegates; now therefore be it

Resolved, that a representative from the OSMA Medical Student Section be added as an ex-officio member to the OSMA Board of Trustees; and be it further

Resolved, that the OSMA bylaws be amended to state that the OSMA Medical Student Section shall be entitled to one Delegate and one Alternate Delegate for each MSS chapter represented on each medical school campus in the state of Oklahoma.

Resolved, that a representative from the OSMA Medical Student Section be added as a member to the OSMA Board of Trustees; and be it

Resolved, that the OSMA Bylaws be changed to add the addition of a Medical Student Section Trustee to the OSMA Board of Trustees; and be it further

Resolved, that the OSMA Bylaws be amended to state that the OSMA Medical Student Section shall be entitled to one Delegate and one Alternate Delegate for each MSS chapter represented on each Medical and Osteopathic medical school campus in the state of Oklahoma.

(ADOPTED)

**Late Resolution 30:
JCHAO Sentinel Event Policy**

Introduced by: Michael J. Haugh, MD
Referred to: Reference Committee III

(A-98)

Whereas, The Joint Commission on Accreditation of Health Care Organizations (JCHAO) has announced a change in its "Sentinel Event Policy" that could create significant liability concerns for physicians, hospitals and other health care organizations; and

Whereas, The Physicians Liability Insurance Company shares the concern with the Physician Insurers Association of America (an association of professional liability insurance companies) about the potential for damaging release or discovery of confidential information as a result of this revised policy; now therefore be it

Resolved, That the Oklahoma State Medical Association present a resolution to the American Medical Association House of Delegates, during the AMA annual meeting, expressing OSMA's concerns with the new JCHAO Sentinel Event Policy and encourage the AMA to ask the JCHAO to delay implementation of their new policy until these concerns can be adequately addressed.

(ADOPTED)

**Late Resolution 31: Medicaid
Physician Reimbursement**

Introduced by: Council on Medical Services
Referred to: Reference Committee III

(A-98)

Whereas, Medicaid provides financing for health care and children account for approximately 60% of Medicaid recipients; and

Whereas, the cost for services for children accounts for less than 30% of Medicaid dollars and physician services for Medicaid children accounts for less than 10% of Medicaid cost; and

Whereas, physician reimbursement for children's services in Oklahoma is below acceptable levels and below practice overhead cost and physician reimbursement for primary care/evaluation and management (E&M) codes in Oklahoma is most adversely affected and physician reimbursement is based on a fee schedule with no consideration for relative values; and

Whereas, physician reimbursement based on the Resource Based Relative Value Scale (RBRVS) fee schedule as developed and maintained by the Health Care Financing Administration (HCFA) with the American Medical Association (AMA), and Specialty Societies input is used by Medicare and only in a few states by Medicaid; and

Whereas, Medicaid reimbursement for physician services for children would be enhanced with an RBRVS fee schedule; therefore be it

Resolved, that the OSMA develop a policy on Medicaid reimbursement that RBRVS is the only acceptable fee schedule; and be it further

Resolved, that the OSMA refer this to the AMA to initiate a Congressional effort that would require all state Medicaid programs to use RBRVS for physician reimbursement.

(NOT ADOPTED)

**Late Resolution 32: Evaluation
and Management Codes**

Introduced by: Pittsburg County Medical Society
Referred to: Reference Committee III

(A-98)

Whereas, as physicians in Oklahoma, we have recently been charged by Health Care Financing Administration (HCFA) to implement new mandated guidelines of our patient encounters beginning July 1, 1998; and

Whereas, the office chart is considered a confidential record of the patient/doctor encounter and not as a billing tool; and

Whereas, implementation of HCFA proposals to be burdensome to the physician by decreasing patient encounter time, and therefore decreasing the patient/doctor rapport; and

Whereas, because of the onerous nature of mandated requirements, physicians may decrease their patient load, therefore hurting the needy populous; and

Whereas, other systems, such as outcome management evaluations may be superior in nature; therefore be it

Resolved, the Oklahoma State Medical Association shall instruct its delegates to the American Medical Association to urge the national membership to instruct Congress to cease implementation of the pending evaluation and management guidelines and to assess new methods to evaluate new avenues of payment methodologies.

(ADDED AS AMENDED)

Late Resolution 33: E&M Guidelines

Introduced by: East Central Oklahoma
Medical Society

Referred to: Reference Committee III
(A-98)

~~Whereas, the proposed AMA/HCFA
guidelines are intrusive into a physician's
practice of medicine; and~~

~~Whereas, these guidelines do nothing
to improve the quality of care; and~~

~~Whereas, compliance with these guide-
lines requires several hours of addition-
al time in the office doing paperwork each
clinic day; and~~

~~Whereas, the medical record is a
physician tool used to chronicle the
medical history and physical changes of
a patient; and~~

~~Whereas, the medical record was not
designed nor was it ever intended to be
used as a tool to determine physician
reimbursement; and~~

~~Whereas, the medical record is the
property of the patient and the physician;
therefore be it~~

Resolved, that the Oklahoma State
Medical Association unanimously sup-
port the following statements:

- The proposed AMA/HCFA Evalua-
tion and Management guidelines are
intrusive into a physician's practice
of medicine and detract from his/her
ability to provide quality care to the
patient.

- These guidelines do nothing to im-
prove the quality of care for the pa-
tient.
- Implementation of these proposals are
burdensome to the physician by de-
creasing patient encounter time; there-
fore decreasing the patient doctor
rapport. Because of the onerous nature
of these mandated requirements,
physicians must decrease their patient
load, thereby limiting access to health
care.
- The medical record is a confidential
physician tool used to chronicle the
medical history and physical and men-
tal status of a patient and was not de-
signed nor was it ever intended to be
used to determine physician reimburse-
ment.

~~*Resolved*, that the Oklahoma State
Medical Association instruct the Amer-
ican Medical Association to resolve this
issue in favor of the physicians and pa-
tients of America up to and including the
position of absolute non-compliance with
said guidelines.~~

Resolved, that the Oklahoma State
Medical Association unanimously sup-
ports the above statements and asks the
American Medical Association to resolve
this issue in favor of the physicians of
America up to and including the posi-
tion of absolute non-compliance with said
guidelines.



Big tobacco can walk away. We won't.

The tobacco bosses have walked away. All they've left behind are the suffering victims of tobacco.

We are the doctors and hospitals who care for the victims of tobacco. We have an ethical and professional duty to improve their health and prevent treatable illness. We're doing our job. Now it's up to Congress and the President to lead the country in a bipartisan fight against tobacco.

We urge Congress to pass and President Clinton to sign legislation that includes:

- No special protections for the tobacco companies.
- Strong penalties for pushing tobacco on our kids.
- Strong penalties if teenage smoking does not decline.
- Strong FDA regulation.
- An increase in the price of tobacco products to discourage youth from smoking and to cover the cost of tobacco-related illnesses.
- A promise that adequate tobacco funds are spent on tobacco-use prevention and control programs as well as other health programs like Medicare and Medicaid.

Pass strong tobacco legislation and pass it now.

It's time to put the public health before tobacco profits.

American Medical Association
Physicians dedicated to the health of America



American Hospital Association

Oklahoma Academy of Ophthalmology & the Oklahoma State Fire Marshal Team Up for Fireworks Safety



Don't Play with Fireworks!

This July 4th holiday, ophthalmologists and fire safety groups joined together for a common goal: to reduce the number of fireworks-related injuries by encouraging families to attend public fireworks displays instead of using fireworks at home.

"Every year, there are approximately 7,000 fireworks-related injuries in the United States, with 2,000 of those being permanent injuries to the eyes," said **Jeffrey Shaver, MD**, president of the

Oklahoma Academy of Ophthalmology. "Attending a public fireworks display is a safe way to celebrate our country's independence."

Because of the Oklahoma's fire service mission to protect life and property through fire safety, the Oklahoma State Fire Marshal, Tom Wilson, supports this partnership with the Oklahoma Academy of Ophthalmology, discouraging fireworks use at home. "Our advice to families is: Don't use fireworks at home - they can be harmful and even lethal."

The fireworks Eye-Safety Campaign included distribution of balloons with a safety message to kids, fireworks safety information to partners, and media interviews to inform the public of the dangers of using fireworks.

Be Safe, Attend a Public Fireworks Display!

- There are approximately 7,000 fireworks-related injuries in the U.S. each year.
- Of these 7,000, approximately 2,000 are eye injuries.
- Of these eye injuries, 1/3 result in permanent eye damage, 1/4 in permanent vision loss or blindness.
- Almost one in 20 victims lose all useful vision or require removal of the eye.
- One-fourth of all eye injuries caused by consumer fireworks is inflicted on bystanders.
- The single-most dangerous type of firework is the bottle rocket, which flies erratically, causing bystander injuries. Bottles and cans used to launch bottle rockets often explode, showering fragments of glass and metal.
- Sparklers, often given to young children, burn at 1800 degrees Fahrenheit, nearly hot enough to melt gold.

Oklahoma City Physician Receives National Honor

The American College of Occupational and Environmental Medicine presented **Roy L. DeHart, MD** with its highest honor, the William S. Knudsen Award.

DeHart was recognized for his extraordinary career as an educator in aerospace, primary care and occupational medicine; as a prolific author; and as president of ACOEM and other preventive medicine organizations.

He received his master of public health degree from Johns Hopkins University. DeHart served in the U.S. Air Force in several capacities including commander and director of base medical services at the U.S. Air Force Hospital in Kirkland, N.M., and later, commander of the Air Force Aerospace Medical Research Laboratory in Ohio.

In 1985, DeHart joined the Department of Family and Preventive Medicine at the University of Oklahoma; today he



is professor and department chairman. Since 1995, he has also directed the university's Division of Occupational and Environmental Medicine.

He has authored numerous publications and abstracts. In January 1986, he earned the designation of ACOEM Fellow. From 1992-98, he served as the president of ACOEM.

The ACOEM is an international society of 7,000 occupational medicine physicians, which provides leadership to promote optimal health and safety of workers, workplaces and environments by educating health professionals and the public, stimulating research, enhancing quality of practice, guiding public policy and advancing the field of occupational and environmental medicine.

Oklahoma State Board of Health Adds to Vaccination Requirements

At its June 18, 1998, meeting, the state Board of Health approved two revisions adding hepatitis A and varicella (chickenpox) vaccines to school entry requirements. The two revisions become effective this fall (1998) and there is a 120-day grace period for students to comply with both. Oklahoma's School Immunization Law allows exemptions to immunizations for medical, religious or personal objections.

Students entering kindergarten and 7th grade this fall (1998) will be required to have had two doses of hepatitis A vaccine, with the first dose on or after the second birthday and the second dose six to eighteen months later. Each year thereafter, the requirement shall be extended one grade level so that in the school year beginning in 2004, all children entering school shall be required to have two doses of hepatitis A vaccine.

Students entering kindergarten this fall (1998) will be required to have had one dose of varicella (chickenpox) vaccine given on or after the first birthday, or a parent's statement of a history of the disease will be accepted. Each year thereafter, the requirement shall be extended on grade level so that in the school year beginning in 2010, all children entering school shall be required to have the one dose of varicella vaccine or a parent's statement of a history of the disease.

Hepatitis A vaccine is available from the Oklahoma State Department of Health (OSDH) for all children who require the vaccine for school entry. Varicella vaccine is available from OSDH for all children 15 years of age and younger. If you have any questions regarding these school law changes, call the Maternal and Child Health Service, Immunization Division at 405/271-4073.

Table for Hepatitis A

SCHOOL YEAR	GRADES REQUIRING TWO DOSES OF HEPATITIS A	
1998-1999	KINDERGARTEN	7
1999-2000	K-1	7-8
2000-2001	K-2	7-9
2001-2002	K-3	7-10
2002-2003	K-4	7-11
2003-2004	K-5	7-12
2004-2005	K-12	

Table for Varicella (Chickenpox)

SCHOOL YEAR	GRADES REQUIRING ONE DOSE OF VARICELLA
1998-1999	KINDERGARTEN
1999-2000	K-1
2000-2001	K-2
2001-2002	K-3
2002-2003	K-4
2003-2004	K-5
2004-2005	K-6
2005-2006	K-7
2006-2007	K-8
2007-2008	K-9
2008-2009	K-10
2009-2010	K-11
2010-2011	K-12

Zinc Lozenges Ineffective in Treating Cold Symptoms in Children

Zinc gluconate glycine (ZGG) lozenges are not effective in treating cold symptoms in children and adolescents, according to an article in the June 24 issue of *The Journal of the American Medical Association (JAMA)*.

From a group of 249 students in grades 1 through 12 in two suburban school districts in Cleveland, Ohio, researchers found that there was no difference in the amount of time it took for cold symptoms to resolve for the children who took zinc lozenges vs. those who took the placebo lozenges. This study, performed by Michael L. Macknin, MD, of the Cleveland Clinic Foundation in Ohio, and colleagues, is the first to test the effectiveness of zinc as a cold remedy in children.

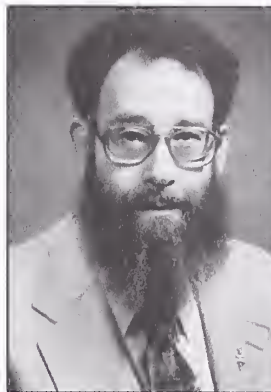
Ten previous studies have investigated different dosages and formulation of oral zinc as a cold remedy. In one of the previous studies in adults that was conducted by the same researchers of this study, adults who took zinc lozenges experienced a 42 percent decrease in the duration of their cold symptoms.

"The discrepant results between these studies in adults and the current study in children may be explained by the different dosages or flavoring of the formulation, the ages of the subjects, the time of year when the studies were performed (i.e., the viruses involved may have been different) or chance differences between the placebo and zinc groups," the authors explained.

The common cold is one of the most frequently occurring illnesses in the world, with more than 200 known viruses that cause colds in adults, including rhinoviruses (the most frequent cause), coronaviruses, adenoviruses, respiratory syncytial virus and parainfluenza viruses.

The ways that zinc may affect the common cold remain uncertain, although a number of possibilities have been suggested. The authors conclude that "additional studies in all age groups with different dosages and formulations of zinc lozenges and virologic testing are needed to define what role, if any, zinc has in the treatment of common cold symptoms."

Society of Teachers of Family Medicine Bestows National Award on Oklahoma Professor



Howard F. Stein, PhD, was presented with a national award for more than two decades of contribution to and leadership in the discipline of Family Medicine.

The Recognition Award, the highest honor given to an individual from the Society of Teachers of Family Medicine, was presented to Stein at the society's recent 31st Annual Spring Conference in Chicago.

Stein, a medical and psychoanalytic anthropologist, has taught in the Department of Family and Preventive Medicine for more than 20 years. In 1992, he was the recipient of the Donald J. Blair Friend of Medicine award from the Oklahoma State Medical Association. From 1980-88, he edited the *Journal of Psychoanalytic Anthropology*.

Award Winning Photos Needed!

It's a "picture perfect" opportunity to find your way into the spotlight—The Journal is looking for new photographs that might be candidates for its cover.

Oklahoma physicians must take all submitted photos, with Oklahoma scenery as the primary subject, referenced with the photographer and a photo description to the Journal office at OSMA.

Accompanying all photographs should be a written release authorizing the Journal to use the photo on its cover. Should you have any questions about the submission of any particular photo(s), please contact Leslie Turner-Lynch, 405/848-2171, for more information.

Edward N. Brandt, Jr. Receives the 1998 Phi Kappa Phi National Award

Edward N. Brandt, Jr., MD, PhD, was presented as the 1998 Phi Kappa Phi National Scholar for the 1998-2001 Triennium.

Brandt was recognized for his outstanding record of achievement by representing characteristics that the organization promotes and recognizes.

The Honor Society of Phi Kappa Phi is dedicated to recognizing and promoting the pursuit of excellence in all disciplines. For his achievement, Brandt will present at the society's convention at Penn State on Aug. 4-8 and receive a plaque and a check for \$2,500.

OSMA Member Prepares Campaign for AMA Board of Directors



Jay A. Gregory, MD, upon arrival back to the state after attending the AMA's Annual Meeting of its House of Delegates in Chicago, announces his campaign for the AMA's Board of Directors. Gregory is the chair of the AMA Delegation for the Oklahoma State Medical Association.

While in Chicago June 14-18, several OSMA were in attendance to establish AMA policy for issues that concern physicians across the nation. More than 250 reports and resolutions were acted upon. An overview of the meeting's highlights and decisions in the August issue of the Journal.

INSTRUCTIONS FOR AUTHORS

Contributions

Articles submitted for publication become the sole property of the JOURNAL and must not have been published elsewhere. The Editorial Board reserves the right to edit any material submitted. Manuscripts must be typewritten or printed in a standard typeface, double-spaced, and submitted in quadruplicate (original and three copies). Pale or dirty copy, dot matrix fonts, or any use of all capital letters is not acceptable. **In addition, authors are requested to submit their manuscripts on computer disk, preferably in WordPerfect (any PC version) or ascii/ansi/dos text.** Disk should be clearly labeled with the manuscript's title, author, and format. The JOURNAL does not assume responsibility for the statements of opinions of any contributor.

Any material reprinted from another source must be accompanied by written permission from that source to use the material in the JOURNAL.

Style

All manuscripts should approximate the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state the exact question considered, the key points of methodology and success of execution, the key finding, and the conclusions directly supported by these findings.

Bylines may contain no more than six (6) names and shall include only those individuals who can attest that they have contributed to the conception and design, or analysis and interpretation of data; and to drafting the article or revising it critically for important intellectual content; and to final approval of the version to be published. Other contributions may be recognized in an acknowledgment.

References are to be listed in the order of their appearance in the article, and in the style used in both the JOURNAL and in *JAMA* (author, title, publication, year, volume number, pages). Footnotes, bibliographies, and legends for illustrations should be on separate sheets.

Illustrations

Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

Reprints

Authors will receive reprint order forms from the Transcript Press, P.O. Box 6440, Norman, OK 73070-6440, with their proofs. Requests for reprints must be made to the Transcript Press within 30 days after publication.

DEATHS

Allen B. Eddington, MD 1923-1998

Allen B. Eddington, MD, was born in 1923 and died May 20, 1998. During WWII, he was a medical technician assigned to the 182nd General Hospital in the European Theater. After the war, he entered medical school and was graduated from the University of Oklahoma College of Medicine in 1953. He then began a private practice, which continued for 33 years. He served on staff at Hillcrest Hospital for part of that time and was on the original staff of Saint Francis Hospital when it opened in 1960. He later became Secretary of General Practice at Saint Francis. Eddington retired in 1986. He was a charter member of the Alpha Omega Alpha Honor Medical Society, life fellow of the American Academy of Family Practice, a lifetime member of the Oklahoma Academy of Family Physicians, life member of the American Medical Association and had been a member of the OSMA since 1955. In 1989, he received the "Doctor of the Year" award from the Tulsa County Medical Society.

Jerry L. Puls, MD 1933-1998

Jerry L. Puls, MD, a Tulsa pathologist and a 1961 graduate of the University of Oklahoma School of Medicine, died at the age of 65. He served in the Korean War and was a captain in the U.S. Naval Reserves. He practiced in Pryor, then in Kansas City at St. Joseph's Hospital and the V.A. Hospital until 1971. He returned to Oklahoma to work at St. John Medical Center until 1978, when he went to Tripler Army Medical Center in Hawaii. In 1982, Puls returned to Tulsa as director of laboratories at Hillcrest Medical Center until 1993, then was medical director of regional development. Puls was a member of the Board of Trustees for the Oklahoma State Board of Medical Licensure and Supervision from 1996-97, was president of the Tulsa County Medical Society in 1987 and had been a member of the OSMA since 1962.

Thomas C. Points, MD, PhD 1917-1998

Thomas C. Points, MD, PhD, died June 15, 1998. He was born in Wyandotte, Oklahoma, on June 25, 1917. Points received his medical degree in 1941 from the University of Oklahoma College of Medicine. He worked in private practice in Oklahoma City, specializing in obstetrics and gynecology until 1982, then focusing on family practice until his retirement in 1983. Points served in the United States Army from 1951-1953 as chief of obstetrics and gynecology at the Station Hospital in Fort Sill, Oklahoma. He served in various leadership posts during his career, including professor at the University of Oklahoma School of Medicine. Points was the deputy assistant secretary for health services with the Department of Health, Education and Welfare from 1970-71, and an alternate delegate and member of several committees with the American Medical Association. He was a member of the Oklahoma City Obstetrical and Gynecological Society, and joined the OSMA in 1948.

IN MEMORIAM

1997

Gerald Matthew Steelman, MD	August 29
George Arthur Martin, MD	September 10
John Douglas Hesson, MD	October 18
Dorothy Rose Danna, MD	November 7
Marcus Lafayette Cox, MD	November 11
Curtis Bert Cunningham, MD	November 16
David Eugene Livingston, MD	November 21
Fred Thomas Fox, MD	December 6
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Bryon Fremont Smith, MD	February 21
Emil Maurice Childers, MD	February 22
Burton Bonnard McDougal, MD	February 23
Robert T. "Tom" Cronk, MD	April 15
Jack Paul Enos, MD	April 19
Paul Arthur Barnett, MD	April 28
Allen B. Eddington, MD	May 20
Jerry L. Puls, MD	June 5
Thomas C. Points, MD, PhD	June 15

CLASSIFIEDS

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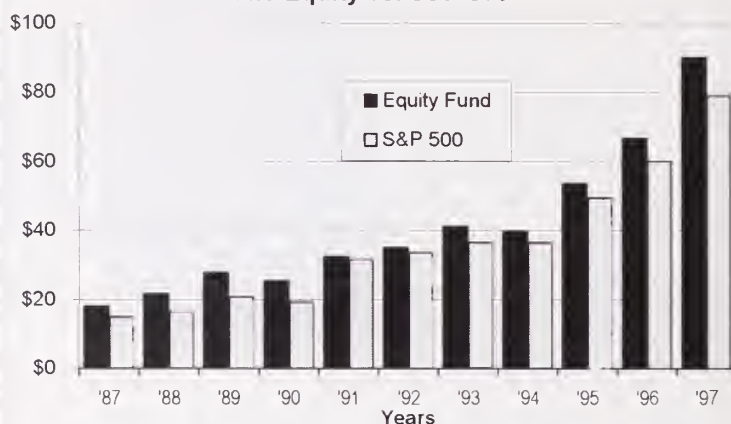
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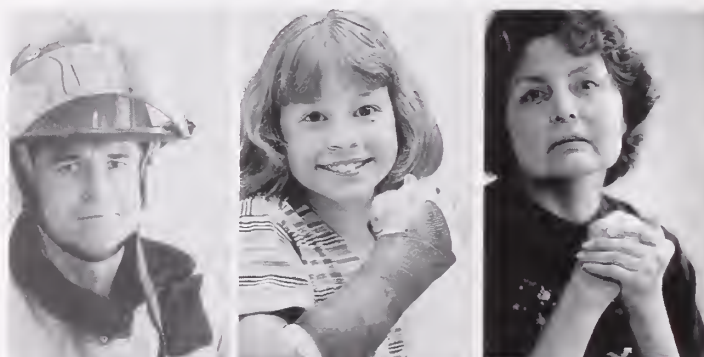
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ALLIANCE



Outgoing Alliance President Doris Edge hands over the presidential reins to Diane Cooke at the 1998 Annual Meeting of the House of Delegates. Alliance members showed up in full force at the Meeting.



THE LAST WORD

■ Genetic Testing Uses Addressed with New Oklahoma Legislation

Governor Frank Keating signed a bill in June that prohibits genetic discrimination in insurance and employment. OSMA Friend of Medicine award recipient Rep. Betty Boyd, D-Tulsa, co-authored the bill with Sen. Penny Williams, D-Tulsa. House Bill 3169, the "Genetic Nondiscrimination in Insurance Act" and the "Genetic Nondiscrimination in Employment Act" outlaws the use of genetic testing to prevent anyone from obtaining either insurance or employment.

HB 3169 prohibits insurance companies from using genetic testing to base insurance coverage decisions on. The new law also prohibits employers from requiring employees to take a genetic test where results may be considered in determining or restricting rights or benefits.

■ Mark Your Calendar

The next Board Meeting of the Oklahoma State Medical Association is July 12, 1998, at the OSMA headquarters.

■ Managed Care Overhaul Effort

Washington, DC, is once again home of the managed care show-down, as lobbyists representing patient advocacy groups and managed care companies attempt to get the attention of lawmakers and rally support for, or against, a bill designed to overhaul managed care.

The American Medical Association has endorsed the bill, which was introduced by Sen. Edward M. Kennedy after President Clinton called for a patient's bill of rights in his January State of the Union Message.

To get Congress' attention, both sides are spending money, supporting candidates who support their positions. The managed care industry has contributed more than \$1.5 million to federal candidates and political parties, while health specialists (who are not doctors) have spent \$1.8 million. The AMA has donated \$646,000.

On the public front, lobbyists for managed care companies have run advertisements asking Congress to "Pass this legislation, and expect to see premiums jump, the number of uninsured to rise and frivolous lawsuits to multiply." To combat that message, the supporters have asked Helen Hunt, the actress who played an HMO-bashing mother of an asthma sufferer in the movie *As Good as It Gets*, to be the spokesperson for the bill. Hunt has not made a decision yet on whether to be, or not to be, spokesperson for the bill.

■ **Robert D. McCaffree, MD**, serves as Chairman of Public Health for the American Medical Association. In Chicago at the recent Annual Meeting of Delegates, he did an excellent job of representing Oklahoma and all physicians.



■ The Coat that Wouldn't Wear Out

E.L. Calhoon, MD, submitted this photo and story behind "The Coat that Wouldn't Wear Out."

Few physicians are born with gold spoons in their mouths. Medicine has long drawn on farm boys, small town boys and girls, and students who often had parents who sacrificed to help pay for their medical education.

This photograph is of Dr. Munson Fuller, premier EENT specialist of Tulsa.

H.W. Cahoon, MD, inherited the coat from previous residents during his Mayo Clinic Urology Residency, and gave it to Dr. Fuller, who likewise left it to a needy resident who could not afford to buy a muchneeded warm overcoat. How many hands the coat has passed through is unknown, but certainly many.

This photo of many years ago evokes poignant memories of the past experiences of many needy students, interns and residents.

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Herbal Healers

The current meteor flashing through the pharmaceutical sky is derived from St. John's Wort, a weedy plant that is widespread in temperate climates, including Oklahoma. Used by herbal healers since medieval times, the aromatic oils in St. John's Wort are now being touted as a cheaper, faster, gentler Prozac with few side effects. However, clinical studies seem not to have been completed, and the intense advertising campaign is couched in "health food" rhetoric that glows with vague promises but has no specific indications.

St. John's Wort (*Hypericum perforatum*) is a prominent member of a growing constellation of "natural remedies" that are being hyped to the public with intense and sophisticated advertising campaigns. Echinacea, chamomile, chives, ginger, sage, nettle leaves, and a variety of other "natural healing" herbs are packaged and sold in pharmacies under the "health food" banner, thus avoiding regulation by the Food and Drug Administration.

Although not regulated as drugs, these "natural remedies" are promoted as if they could be substituted for the medications used in treatment of specific diseases. With vague phrases like "...has been used for..." or "...the Greeks valued the plant for..." and "is used to purify the blood," the advertisements suggest usages that have never been scientifically evaluated. With statements like, "All-natural healing secrets doctors don't tell you," the idea is projected that the product can substitute for the physician's prescription.

About a hundred years ago, chemists isolated the active principle of St. John's Wort and dubbed it "hypericum," after the genus of the plant. An old textbook (Sollmann, *Pharmacology*, 1948) states that hypericum is a fluorescent substance that causes photo-dermatitis in cattle that eat the plant, but Sollmann records no medicinal use. The current *Physicians Desk Reference* has no listing for hypericum, and contemporary pharmacology texts have no recommended usage for it. The pharmacologists are debating whether St. John's Wort contains a monoamine oxidase inhibitor, and whether it is safely useful.

Botanists observe that grazing animals avoid St. John's Wort, and that sparsely-pigmented animals that eat it are susceptible to dermatitis. So why does a parsimonious Mother Nature produce complex chemicals like hypericum that are no perceptible use to the plant? Why do plants make aromatic oils, strychnine, hemlock, atropine, morphine and a host of other alkaloids?


Despite the historical fact that many plant products such as morphine, digitalis, atropine, curare, quinine, and many others have been very useful to mankind, the plants do not make these chemicals for the benefit of us humans, but rather for the plant's own self-preservation. Those plants that contain chemicals that are noxious to the animals and insects that feed upon them are partially protected from predation and are able to reproduce. Thus plant evolution has encouraged those plants that contain noxious substances.

We humans should logically take the position that any plant product must be proven to be safe before we consume it. To equate "natural" with "safe" is to forget that strychnine, hemlock, and muscarine are native, natural materials that are violent organic poisons fatal to humans. Before embracing, or ingesting, "natural remedies" of old folk medicine, we should use the skills of the modern chemist and pharmacologist to select those plant products that are truly useful. Smooth advertising will not remove toxic substances from plant products, and scientific study should precede use.

...we should use the skills of the modern chemist and pharmacologist to select those plant products that are truly useful.

Ray V. McIntyre, M.D.

Ray V. McIntyre, MD
Editor-In-Chief



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Call 1-888-AMA-1997 to find out more about the AMA's Medicare proposal and how you can help to get it implemented.

TODAY'S AMA
*Giving Power
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Gratitude and Generosity

Greetings to all whom labor these hazy and crazy days of summer. August has come almost before its expected time, and preparations for the fall are in order. It is a pleasure to review some of the events over the past few weeks and to detail some happenings for this month.

Your OSMA Board of Trustees met last month and approved programs for the future. The Board approved the Oklahoma Credentials Verification Organization (OCVO) task force recommendation "to assume full ownership and operational control of the OCVO. A committee of the Board will be appointed to address specific plans for implementation, including the development of a detailed business and marketing plan, which will estimate the total current and future projected costs to the OSMA for such assumption."

Special thanks for the efforts of the OCVO Task Force and to the Tulsa County Medical Society for their 10 years of work in developing the OCVO. The highly qualified and experienced staff developed a service with expertise and National Committee for Quality Assurance certification. The primary focus of the OCVO is to protect the physician and provide a safe, confidential and accurate credentialing data collection service in a centralized program, avoiding duplication. This translates into fewer forms, less hassle and more time for the patients.

The Computer subcommittee recommended the development of an internal Information Systems Division, which was approved by the Board of Trustees. A few highlights of this new plan include the development of Oklahoma Data for Oklahoma Doctors, including information on third-party carrier performance, contract analysis, local outcomes data, reimbursement comparison and trends, and legislative activities. Additional information can in-



clude patient advocacy information, consultative services for members regarding office management and year 2000 initiatives, group buying discounts, a central depository of information and development of local electronic media standards. A strategic plan will be presented at the next Board meeting.

These new programs will enhance the growth of your OSMA and provide services to members. The recruitment of new members should follow these steps. A program for medical student member acquisition has been developed and involves the support of OSMA members in student sponsorship. For a nominal amount, which underwrites part of the student's membership in your OSMA and AMA, a student can be paired with a member "sponsor." This program, an idea of the Medical Student Section, will be implemented this month when the first year class begins orientation. Your generosity in supporting this program is appreciated.

First year medical students attending the University of Oklahoma School of Medicine will receive their white coat at the second annual White Coat Ceremony on Sunday, August 16, 1998. The 153 incoming classmates will be "cloaked" by OU Faculty and recite a pledge based on the Hippocratic Oath and the AMA Code of Ethics. Your President will share the honor of this ceremony. Memories of the first day as an "MSI" return. Gratitude to the many faculty and staff as well as the residents who participated in medical education is expressed. Giving something back to the organizations that generously supported education can be a perpetual act.

Thank you, OSMA, for the opportunity to represent you at his event.

A handwritten signature in dark ink that reads "Mary Anne McCaffree". The script is fluid and cursive.

Mary Anne McCaffree, MD
OSMA President

Giving something back to the organizations that generously supported education can be a perpetual act.

Announcing the 1998 Mark R. Johnson Competition— Excellence in Medical Writing

The Editorial Board of the JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION and the OSMA Board of Trustees are proud to announce the 1998 Mark R. Johnson Competition—Excellence in Medical Writing.

A \$500 cash award will be presented to the medical student or resident at the University of Oklahoma College of Medicine (Oklahoma City or Tulsa campus) who, by December 31 of this year, submits the best scientific paper or opinion piece for publication in the JOURNAL.

Entries will be judged by the JOURNAL's Editorial Board at its annual meeting in the spring of 1999 and the winner, if any, will be announced at the Annual Meeting of the OSMA House of Delegates in April 1999. Presentation of the award in any given year will be dependent upon the receipt of eligible papers and at the discretion of the Editorial Board. All decisions of the Editorial Board will be final.

The student or resident submitting the paper need not be the sole author, but must be the *lead* author and must have done the majority of the writing. *Entries in the competition should be clearly labeled as such when submitted.*

Entries should be mailed to: Mark R. Johnson Competition, OSMA JOURNAL, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118.

The memorial trust that funds the competition was established by the friends and family of Mark R. Johnson, MD, who, during his two decades as editor-in-chief of the OSMA JOURNAL, exemplified the very best in both expository and opinion writing in the field of medicine.

Strength of ACL Reconstructions Using Semitendinosus Tendon Grafts

Vipool K. Goradia, MD; Mark C. Rochat, DVM; William A. Grana, MD; Davis M. Egle, PhD

Purpose: Patellar tendon autografts have been considered by many as the gold standard for intraarticular reconstruction of the anterior cruciate ligament (ACL). Hamstring tendon grafts are being used increasingly, however there are few studies focusing on their mechanical properties. The objectives of the present study are to determine the strength of a semitendinosus graft at various postoperative periods.

Methods: In Part I of the study, a looped semitendinosus graft was used to reconstruct the ACL in five fresh frozen human cadaver knees with a simulated endoscopic technique. The immediate post-operative strength was determined by loading the knees to failure using a mechanical testing system. In Part II the effects of graft maturation and incorporation were considered. A similar graft was used to reconstruct the ACL in twelve ewe sheep. Their knees were harvested and tested at four, eight, and twelve weeks postoperatively.

Results: The mean maximum strength and stiffness of the cadaveric reconstructions were 352 N and 8.18 N/mm, respectively. All failures occurred at the fixation sites. The average strength of the sheep reconstructions was similar at four, eight, and twelve weeks (376 N, 415 N, and 323 N, respectively). The stiffness increased from 21.1 N/mm at four weeks to 46.7 N/mm at eight weeks and then remained the same. The failures occurred primarily by tendon pull-out of the femoral tunnel at four, eight and twelve weeks.

Conclusions: Graft pull-out from the femoral tunnel implies incomplete tendon incorporation

Table 1

Mean (Standard Deviation)	Maximum Force	Stiffness N/mm
Cadaver knees (N=5)	352 (175)	8.18 (4.45)
Sheep 4 weeks (N=3)	376 (65.7)	21.1 (2.7)
Sheep 8 weeks (N=3)	415 (256)	46.7 (21.7)
Sheep 12 weeks (N=3)	323 (56.7)	53.0 (5.3)

during the initial three months post-operatively. Activities which place high loads on the graft should be avoided during this period. Additionally, the mechanical properties of this hamstring graft reconstruction are similar to those reported for patellar tendon grafts in other animal models.

Introduction

A variety of graft materials and fixation devices are used for reconstruction of the ACL.^{3,5,12} The common goal of these procedures is to allow the patient to participate in post-operative rehabilitation and eventually return to sports activities.^{7,11} Numerous studies have shown the fixation to be the weak link in the early post-operative period.^{1,2,6,10} Most of these used a cadaver model, and thus could not consider biologic factors. Once there is adequate graft incorporation into the femoral and tibial bone tunnels, then the fixation should no longer be the limiting factor, and failure of the reconstruction will usually occur within the intra-articular portion of the graft.^{3,17} While hamstring tendons are being used increasingly for reconstruction of the ACL, there are few studies that have focused on their biomechanical properties.²

The objectives of the present study are to reconstruct the ACL using a semitendinosus tendon graft and secure it with a fixation device commonly used in clinical practice. The mechanical properties of this reconstruction will be determined at various post-operative times.

Direct correspondence to Vipool K. Goradia, MD, 240 Blenheim Road, Baltimore, MD 21212.

Materials & Methods

In Part I of the study, five fresh frozen cadaver knees from different individuals were stored at -20° Celsius. They were thawed at room temperature for 24 hours prior to preparation and testing. The average age of the cadavers was 63 years.

In Part II, the ACL was reconstructed in the single hind limb of twelve ewe sheep. Each sheep was examined for lameness and general health by a licensed veterinarian. They were cared for according to institutional guidelines for the care and use of laboratory animals. Radford et al⁹ have shown the sheep knee to be a valid model for study of human cruciate ligaments. Three sheep were sacrificed at four, eight, and twelve weeks post-operatively each.

Reconstruction Technique

A medial parapatellar incision was made. The semitendinosus insertion was identified and the tendon was harvested. The tendon was looped around 5mm polyester tape (*Endotape*, Acufex Microsurgical Inc., Mansfield, MA) which was placed through an *Endobutton* (Acufex Microsurgical Inc.) and tied at the appropriate length. A modified Krakow stitch was placed in both free ends of the tendon using number one *Vicryl* suture (Ethicon Inc.). Femoral and tibial tunnels were made using a drill guide system and the graft was passed as previously described.⁹ In the cadaver group, a bicortical screw and AO soft tissue washer was used for tibial fixation. The tendon grafts in the sheep were not long enough to use a soft tissue washer; therefore, the *Vicryl* (Ethicon Inc.) sutures were tied around a bicortical post. All of the remaining soft tissue was dissected from the cadaver knees and they were tested.

The sheep knee incisions were closed in layers and a soft bulky cotton dressing was applied. The sheep were allowed unrestricted activity in small pens and their bandages were removed at forty-eight hours. They were randomly selected at the appropriate interval and euthanized with a barbiturate overdose. All soft tissue except for the reconstructed ACL was dissected from the knees and they were tested.

Mechanical Testing

The knees were secured to a mechanical testing system (MTS, MTS System Corp., Minneapolis, MN) in 30° of flexion. They were loaded to failure with an anterior tibial translation motion at 2 mm/sec. The force and elongation were recorded by a computer and the stiffness was calculated.

Results

The cadaver reconstructions failed at a mean maximum load of 352 N and stiffness of 8.18 N/mm (Table 1). In Part II the four, eight and twelve week groups failed at similar loads (376 N, 415 N, and 323 N, respectively). The stiffness increased from 21.1 N/mm at four weeks to 46.7 N/mm at eight weeks; it remained similar at twelve weeks (53.0 N/mm).

In two of the cadaver knees the polyester tape ruptured. In the other three the tendon pulled away from the soft tissue washer. All of the sheep failures at four and eight weeks and two at twelve weeks occurred when the tendon pulled out from the femoral tunnel. The final twelve week specimen failed by intra-articular rupture of the graft. There were no failures of the fixation devices in the sheep knees.

Discussion

Rowden et al¹⁰ reported a failure strength of 612 N for cadaveric ACL reconstructions using semitendinosus tendon grafts secured with a titanium button and tibial post screw. Our lower strength of 352 N may be explained by their use of a quadruple stranded graft as compared to our double looped graft.

Previous animal studies using hamstring and patellar tendon grafts have reported results similar to ours. Although we did not test the intact control ACL, Radford et al⁸ reported an ultimate failure strength of 2354 N for sheep ACLs. Using this figure, our strengths at four, eight and twelve weeks were 13 to 18 percent of control values. Blickenstaff et al² reconstructed rabbit ACLs with a single stranded semitendinosus tendon graft.

At twelve weeks their failure strength was 8 percent of control ACLs. Butler et al⁴ studied monkeys using patellar tendon grafts which failed at 27 percent of controls at fourteen weeks. Ballock et al¹ reported that their patellar tendon grafts in rabbits failed at 15 percent of controls at thirty weeks.

In the present study the immediate post-operative strengths of the cadaver reconstructions were similar to the sheep reconstructions at four, eight, and twelve weeks. Graft pull-out from the femoral tunnel in the sheep knees suggests inadequate incorporation of the tendon as late as twelve weeks post operatively. Activities that place high stresses on the reconstruction during this time period may lead to gross or microscopic failure of the graft, and thus should be avoided. Future investigations should be performed to determine the fate of hamstring tendon grafts at longer post-operative intervals.

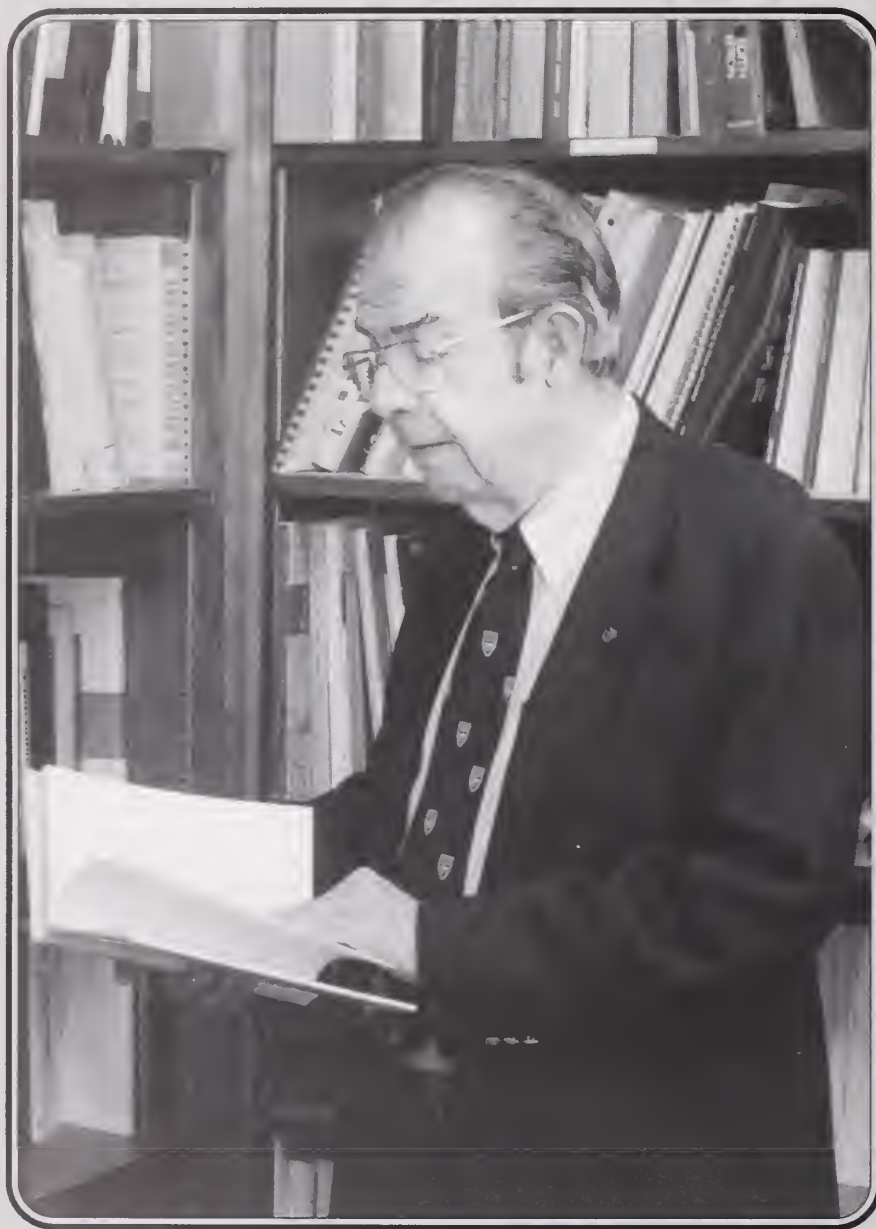
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LEADERS IN MEDICINE



Edward N. Brandt, Jr., M.D.



Story by Richard Green

Ed Brandt's office is in the same University of Oklahoma building where he took classes as a medical student and began his medical career almost thirty years ago. Some would call that a remarkable coincidence since he spent most of those years, nineteen, working out of state, in Galveston, Austin, Washington, D.C. and Baltimore.

Yet, his return to OU, after so many years away, provides a certain symmetry to his career. He spent the first ten years of his career there and has been back now for nine years. And it is not surprising to many of his Oklahoma friends that Brandt returned home — after holding many powerful and prestigious positions and assembling a remarkable record of achievement — to offer the depth and breadth of his experiences and knowledge to his alma mater and his native state. He is like that, they say; he is loyal... sometimes to a fault.

Once, when he had his government job in D.C. and it seemed like emergencies and urgencies were ubiquitous and sixteen to eighteen hours a day was not enough time to do the work and put out the fires, he accepted an invitation from OU to present an inaugural lecture to honor his friend, retiring medical school dean Tom Lynn.

Brandt's office, on the third floor of the OU College of Health Building, would be spacious for most faculty members. For him, it is exceptionally cluttered, almost claustrophobic. He would have difficulty wedging another book or object onto his floor-to-ceiling book shelves. They are so crammed that they look almost organic. Piles of papers and books are stacked on chairs and the floor. His desktop is such a mess that he or someone evidently felt the need to address the phenomenon by taping a paper to the back of the desk telling visitors: "Never trust anyone with an orderly desk." His appointment calendar is computerized; he probably would have difficulty locating an appointment book on his desk.

The most remarkable object on the desk is the Rolodex. One of his OU colleagues, describing not its bulk but its content, said it had to be the biggest Rolodex in Oklahoma. The professional contacts alone number in the hundreds and span the nation. Except for Oklahoma, the great majority of the contacts stem from his government job in Washington, where he spent a little less than four years from 1981 through 1984, less time than any other career location.

But what a job it was, and what years those were! When he arrived in D.C. as the head of the U.S. Public Health Service, he knew he was

walking in a minefield of conflicting views, clashing egos and the usual variety of "crises" associated with administering a large public entity. Brandt had had several years of previous experience administering the state of Texas' health sciences system.

But, the size and scope of the Public Health Service (PHS) dwarfed even the Texas system. PHS had a two hundred year mission to improve and protect the American public's health. Its 47,000 employees and annual budget of \$10 billion were distributed in five large agencies: the National Institutes of Health, the Food and Drug Administration, the Centers for Disease Control, the Alcohol, Drug Abuse and Mental Health



Dr. Brandt has his first meeting with President Reagan.

With his wife, Pat, joining him, Dr. Brandt accepted the Oklahoma Hospital Association's Joon K. Leovitt Outstanding Achievement Award on November 6, 1997.



Administration and the Health Resources and Services Administration.

Although PHS was awesome, Brandt was not intimidated. What he could not anticipate was that this minefield contained a nascent bomb, the fallout of which would affect the entire nation. As he assumed his new seat as U.S. assistant secretary for health in the Reagan Administration, a few young homosexuals in small enclaves on both coasts were dying gruesomely of a mysterious disease. By the time the name AIDS had emerged, it was dawning on Brandt and others that no precedent in government existed for handling this public health crisis. Polio was mentioned, but that battle was waged successfully by the privately endowed March of Dimes.



Ed Brandt's twenty-year career prior to 1981 appears on paper to have been planned meticulously to prepare him for the job as the nation's top health official. But, he scoffs at the notion, saying that "the whole thing was just fortuitous," from first to last.

Growing up in Oklahoma City, Ed had never given a health career a thought until he was married and in college at OU. Moreover, as an indifferent high school student, he hadn't considered college until the Korean War heated up. He enrolled at OU in 1950 as a journalism major. His father, Ed

senior, had worked for the local newspaper, but after he and his wife were divorced when Ed was 9, the senior Brandt moved to Dallas. So Ed and his younger brother and sister were raised by their mother, Myrtle Frances.

Ed took an immediate liking to college, and soon switched his major to mathematics, an excellent choice for a young man with an analytical bent. He also took an immediate liking to Patricia Lawson, whom he courted on a blind date to the Air Force ROTC ball. Six weeks later, they were engaged, and in August 1953 were married.

Later that year, Ed's father-in-law, a Marietta physician, suffered a heart attack. While he was recuperating, Ed and Pat spent several weekends with him, and it was during this time that Ed first thought about a medical career. Nevertheless, after Ed received a B.S. in math from OU in 1954, he and Pat moved to Stillwater where at Oklahoma A&M he spent a year earning a master's degree in math. The wheels, however, were still turning and Ed decided to go to medical school and go into practice with his father-in-law in Marietta.

Ed showed a propensity for work (a preview of sorts) by taking a full load of prerequisite classwork while teaching a full load of math courses as a teaching assistant. Several of his students turned out to be his classmates the following year in 1956, at the OU medical school.

By his third year, Ed's idea of going into practice with his father-in-law was proving to be impractical. His clinical rotation in obstetrics and gynecology convinced him he wanted nothing to do with it, while in pediatrics he had emotional difficulties dealing with sick children.

Simultaneously, he was being influenced in a new direction by two mentors. Dr. Stewart Wolf, chairman of the OU medicine department, and Dr. Bill Schottstaedt, who would become dean of OU's School of Public Health. The new direction was the ground floor of a new discipline: the application of computers to medicine and to medical education. After Ed received his M.D. in 1960, Dr. Wolf arranged things so that Ed could participate in an internal medicine residency as well as pursue a Ph.D. in biostatistics and epidemiology. In 1962, Ed dropped out of the medicine residency and a year later received his doctorate. He was thereupon appointed chairman of the department.

Dr. Wilson D. Steen, one of Ed's early colleagues, recalled that Ed "was one of the best teachers I ever saw. It takes a great teacher to absorb medical students in biostatistics, but Ed could do it. I thought he had a great future as a teacher."

A turning point in Brandt's career occurred in 1967-68, when Dr. James Dennis, OU's vice

president for medical affairs, asked Ed to be his assistant. "I had no interest in administration, but being a good team player, I accepted the job."

Shortly thereafter, Brandt found that he loved the breadth of activities — the challenges of moving from one area to another — and the opportunity to work with so many talented people. Later, he was named associate dean of the medical school. He might have been running the entire medical center within a few years. But when the new decade dawned, Brandt, deciding that the "grass was greener" in Texas, became dean of the graduate school at the University of Texas Medical Branch in Galveston.

Still, he realized the debt he owed to his mentors at OU. "The atmosphere was good for faculty development and creativity. Several faculty like Schottstaedt, Wolf and Tom Lynn paid a lot of attention to me when I was just a young assistant professor running around loose. They spent a lot of time teaching me how to approach and present scientific problems, how to conceptualize information, how to write effectively and how to spend my time more wisely and productively."

Brandt moved his family of five to Texas in 1970. He and Pat now had three sons, Patrick, Ed III, and Rex. They would remain in Texas throughout the '70s. At Galveston, he was appointed dean of the medical school in 1974 and did such a remarkable job of strengthening the state's flagship medical institution, that in 1977 he was appointed vice chancellor for health affairs, administering all six of the state's health science centers. The goal was to provide coordination in order to maximize their strengths. It was a perilous task, for the flip side of coordination is alienation fueled by bickering, jealousy and divisiveness.

By the time Ronald Reagan assumed the presidency in January 1981, Ed Brandt had been so successful in coordinating the institutions into a coherent state system that friends and admirers in high places, such as the American Medical Association, figured he could handle the big federal health agencies of the Public Health Service just as well. On a "Friday the Thirteenth" in February, Brandt was sitting in a regents' meeting when he was told, "The White House is on the line," by a woman wearing that expression that translates, "I don't know whether this is a joke or not."

President Reagan told Brandt he had heard good things about him (from the Secretary of Health and Human Services, Richard Schweiker) and wanted to offer Ed the job of assistant secretary for health. Would he accept? Ed said he would be honored. Actually, the unofficial job offer had been made a few days before by Schweiker, who had interviewed Ed three times and been vetted by

the FBI. The White House issued a press release and almost immediately, Brandt was besieged with phone calls from well-wishers, opportunists, and companies and agencies with vested interests. "I told them all to wait till I was there."

On March 2, he was there — there being the seventh floor of the Hubert H. Humphrey Building, just a couple of hundred yards down the Mall from the U.S. Capitol Building. At first, Brandt spoke cautiously about reevaluating the federal role in health. "I think the authority has become centralized while the responsibility has been dispersed."

But as a presidential steward, he demonstrated some agility at shifting opinions. In a speech to a meeting of medical educators (his former colleagues) in April, Brandt defended the administration's proposals to end federal aid to medical schools as "no longer of high priority" to stimulate the production of doctors. Only a short time earlier, he, however, as a medical educator, had been arguing for more federal money.

Brandt's nomination sailed through the Senate on April 29. "I was so non-controversial, my confirmation hearing (before a Senate subcommittee) lasted about twenty minutes," he said. He was unanimously confirmed by the Senate five days later. The nomination of Dr. C. Everett Koop as surgeon general, however, was held up. Though Koop was better known nationally than Brandt, Koop's selection was opposed by liberals and elements of organized medicine because of his oft-stated opposition to abortion and gay rights. As Dr. James Wyngaarten, former director of the National Institutes of Health, recalled: "Koop came in practically over the dead bodies of some members of Congress." Moreover, Koop had created an embarrassing and confusing situation when he was quoted as saying that he would control the PHS. When Brandt was questioned about this at his confirmation hearing, he simply stated that Koop would serve as his deputy and "perform those duties that he is qualified to carry out" under Brandt's direction.

During one of his interviews with Schweiker, Ed had gotten a pledge from him that Schweiker would delegate the authority to run the PHS to him, the assistant secretary for health. Since, the surgeon general had no job description, Koop would serve at Brandt's pleasure. But that didn't mean that Ed would always be pleased. In a speech just before Christmas, Koop was quoted as saying something to the effect that a lot of teenage violence could be attributed to Nintendo-type video attack games. As sales of the electronic games dropped, angry industry officials complained to the White House and Congress about Koop. According



Dr. Brandt looks over a few of his plaques and certificates of awards.

to Wyngaarten, it probably took Ed "several days to put that fire out but Ed did not blast off at Koop," Wyngaarten said. "They respected each other." Confirming this, Brandt added that the damage had been done. "I just asked Chick (Koop's nickname) if he had been quoted accurately and if he had any evidence for his observation. He said he didn't and that was the end of it as far as I was concerned. I'm sure Chick learned a valuable lesson."

Although Brandt and Koop were cordial to one another, they did not work closely together. In fact, when Brandt created the PHS Executive Task Force on AIDS in 1983, he didn't include Koop as a member. When Koop asked Ed privately if there was a problem, Koop said that Brandt seemed surprised by the suggestion. Still, as Koop wrote in his memoirs, "Brandt never took any concrete measures to end my exclusion from such a burning issue. Maybe it was just Brandt's style because after he left, our relationship deepened."

Brandt says that Koop was not deliberately left off the Task Force for some political reason. Yet, it must be recalled that in the early 1980s, AIDS was a very incendiary issue and Koop had the potential to strike a match at any time. Brandt does say that Koop was "probably our greatest surgeon general" and that he is not surprised that Koop's image has been transformed in the public eye from a highly partisan and arrogant man to a trusted, respected and beloved figure."

As Brandt began administering PHS, he thought the challenge facing health professionals was to convince people that they have to take more responsibility for their own health. "Money alone is not the answer, if it ever was," he said in one speech in which he was emphasizing better patient communications, rather than expanding the delivery of traditional health services.

Examining the federal government's role in

health, however, did not always mean reducing its scope. In one appearance before a Senate subcommittee on pregnancy prevention programs, Brandt testified in favor of federal aid to family planning education for poor women and teenagers. In a *New York Times* article, Brandt's comments "came as something of a surprise," because the administration had been mum on the issue. Brandt said spending public funds on such programs was justified because "family planning is an important medical service." He was asked by Sen. Howard Metzenbaum (D-OH) if he believed that government-aided family planning for teenagers had led to the increased pregnancy rate among young women, as several conservative senators had charged. He said the two were "unrelated."

He was to testify for, bear witness to and defend President Reagan's block grant proposal many times. Brandt went on the road to sell the concept to governors, legislators and state and local health officials. Sometimes he was "greeted with hostility because the status quo would be shaken up." He noted that the government's grant-in-aid programs had gotten out of hand.

The 74 public health-related programs involved federal regulations that needed to be nationally uniform, yet flexible for local application. The task was time-consuming, expensive and often didn't work. He and others in the administration developed and argued for the implementation of three block grants of consolidated health services: prevention; maternal and child health; and alcohol, drug abuse and mental health. Congress enacted the block grant program and by 1983, Brandt was able to report that "the transfer of control has posed no threat to the public's health...because we have found excellent public health employees at all levels of government."



By early 1982, AIDS cases were being reported to the CDC from more cities on the east and west coasts. Though the number was still small, a few non-gay drug abusers had contracted the disease, which implicated the bloodstream as another means of transmitting AIDS. Although some public health officials suspected the AIDS agent was a virus, no one could be sure. In the beginning of the search, Brandt said, "no approach was too crazy, including one hypothesis that the presence of sperm in the gastrointestinal tract might somehow cause an immune deficit," Brandt said.

Other "causes" were advanced and widely disseminated by the media and given credence by some elements of the public. "Three of the

most popular,” Brandt said, “were that AIDS was a) God’s punishment for sinners; b) a conspiracy to rid the world of gays and drug abusers; c) a virus developed for germ warfare that had ‘escaped.’”

Aside from distributing such drivel, the media throughout 1982 “was giving us fits with all the misinformation about how AIDS is transmitted,” Brandt said.

Such irresponsible reporting by the media wasn’t being criticized, Brandt believed, because AIDS primarily affected two groups that didn’t have high status: gays and drug abusers. “Had AIDS affected other groups, for instance members of congress, I don’t think the media would have acted so irresponsibly,” he added wryly.

All the reported rumor-mongering fed the public’s fear and created a situation ripe for hysteria — despite the lack of evidence that AIDS was an immediate threat to the general public. “We decided to try to overwhelm the media with factual information,” he said. “I appeared on all sorts of call-in radio shows, TV programs and was a source for newspaper stories. We set up a 24-hour-a-day toll-free AIDS hotline. In just six months we got close to a half million calls.”

Finding the cause of AIDS scientifically didn’t attract many participants initially. “In ’81, I was able to establish a small amount of money for research by using certain unspent funds or from lapsed programs. I did that because we knew virtually nothing about this disease. After the institutes sent out RFPs (requests for proposals) we didn’t get a single proposal.”

Part of the reason was the thinking that AIDS would turn out to be a fairly simple disease with a fairly simple solution. For a short time, Brandt shared that view. Investigators thought that by the time they had retooled to do AIDS research, the whole issue would be over. On the other hand, some scientists told Brandt that AIDS was just too controversial.

When Congress appropriated \$3.5 million for AIDS research in 1982, Brandt said, “we still got very few proposals and the ones we got ranged from mediocre to bad. The NIH recommended not funding any of them. I said, ‘You’ve got to be kidding. I’m not going before congressional committees to say we’re not spending any money on AIDS research because the proposals weren’t very good. Spend the money.’”

As 1982 wore on, it became clear that AIDS would not be a flash-in-the-pan disease, and all PHS agencies were involved. The CDC was collecting the data that could lead to the cause of AIDS. The Alcohol, Drug Abuse and Mental Health Administration studied AIDS patients with

histories of intravenous heroin and cocaine use to quantify the risk factors associated with needle sharing and AIDS, and the risk to the spouse and children living with needle sharers.

FDA had been testing for toxic effects of “popper” drugs, and as the federal regulator of the nation’s blood supply, the agency began conducting a variety of tests to determine the association of AIDS to blood. In 1982, Brandt formed a PHS committee to report within thirty days on what to do about blood collection and distribution since it was possible that some of the collected blood may have been contaminated. By July 1982, 471 cases of AIDS and almost 200 deaths had been reported.

By early 1983, there were almost 1,000 cases and nearly 400 deaths. But much more ominous was the fact that the number of cases, apparently due to blood transfusions, was beginning to mount. So in March, Brandt issued a PHS set of recommendations to the public, suggesting that “members of groups at increased risk for AIDS should refrain from donating plasma and/or blood products.”

It was about then that Brandt had planned to resign to return to his job at the University of Texas. Technically, he was on a two-year leave. (Two years was the average length of service for assistant secretaries for health.) As the date approached, Brandt told Secretary Schweiker that he intended to announce his resignation. Schweiker, looking stricken, said: “Ed, you can’t do that.”

Pausing for a beat or two, he continued: “Because I am leaving — the announcement will be made later this week. You can’t leave until the new secretary is firmly on board.” That line of reasoning appealed to Brandt, who got a three-



Dr. Brandt addresses graduates at the University of Oklahoma Health Sciences Center - Tulsa.



Continuing the University of Texas-Austin connection is Dr. Brandt's granddaughter, Karina Schwartz, whom he and Pat join at a graduation celebration.

month extension from UT. He was introduced to the president's nominee for the post, Margaret Heckler, one Saturday night by a wag who told her that at DHHS, Ed had three percent of the budget and ninety-nine percent of the problems. Early in their conversation, Ed told her he planned to leave after she was confirmed. "You can't do that," she said, *à la* Schweiker.

Heckler told Brandt she needed his help. She understood that PHS veterans considered Ed to be the best assistant secretary for health ever. Typical of this opinion was NIH director Wyngaarten, who said that his boss was a "straight shooter. What you see is what you get. Uncomplicated and very articulate and thoughtful. No snap judgments. Ed was a very hard working and serious student of the system and its components. He knew everything about NIH and CDC that he needed to know. He commanded enormous respect from the agency heads."

Heckler mentioned many of these points and noted that he also enjoyed a "great reputation with Congress." As a former member of Congress, Heckler knew the value of that latter point. "What will it take to get you to stay?" Brandt said he wanted the same delegation of authority and responsibility that he had had under Schweiker. "Agreed," she said. From that point on, Brandt was day-to-day, as they say in baseball.

He called Texas and said he was staying on. For how long? "At the time, I didn't know," recalls

Brandt. "But I said 'indefinitely.'" UT wished him good luck. He was no longer on leave.



By May 1983, Secretary Heckler had proclaimed AIDS the nation's number one health priority. At a news conference, Brandt announced that approval had been given to a new heat treatment designed to kill infectious agents, including presumably the AIDS agent if it was present in blood products. He pointed out that of the 2,400 AIDS cases, only about twenty-four may have originated from transfused blood. He also noted that although the AIDS agent was still unknown, "it is likely transmitted by blood and semen. If it were transmitted by urine or saliva, we would probably have millions of cases by now."

His words of reassurance, and those of scores of other public health officials, often were ignored, disavowed or attacked by those representing a variety of causes and interests. To deal with them, Brandt previously had decided that the basic issue for the PHS was this "very complex scientific-medical problem. AIDS is by far the most complicated illness ever to hit here in epidemic proportions. We could not get sucked into condemning or supporting gays or drug abusers. They are humans who are dying, and that's our concern. We're going to continue slogging through the scientific trenches until a cause is found and until AIDS is no longer a public health concern."

The scientific trenches were one thing, but the public and political trenches were another. Perhaps reflecting the public's frustration over the elusive AIDS etiology, Geraldo Rivera suggested to viewers of the ABC-TV program *20/20* that the man he was interviewing, Dr. Ed Brandt, had not solved the AIDS problem because of his bigotry toward gays. "My reply," Brandt recalls, "tracing the history of our response to AIDS, was left on the cutting-room floor."

After nearly three years, he said he had been called lots of names. But he always remembered to consider the source. He also had been threatened several times with losing his job, "usually by lawyers who said they had White House connections. I told 'em all the same thing. 'Have at it. I'm ready to go home anyway. Good luck.'"

He testified on AIDS and other subjects more than one hundred times before congressional committees, serving as a dispenser of useful information or a whipping boy, depending on the attitude of the members. After enduring one grilling from Rep. Ted Weiss (D-NY) who was trying to score points for his constituents by attacking a Reagan appointee, a reporter with the liberal *Village*

Voice noted that Brandt had “an immense grasp of the field” and spoke “with clarity and dignity and occasional flashes of midwestern irony that passed over many heads.”

Ed got some good advice early in his PHS tenure from one Democratic legislator from Massachusetts. “I had been given a very tight budget to defend by OMB (the Office of Management and Budget) and in this appropriations hearing the members were giving me a very hard time. ‘You mean you don’t believe in medical research?’ ‘TB is a pretty low priority with you, isn’t it, Dr. Brandt?’ During a break, I was feeling pretty low when this committee member came over to where I was brooding and said, ‘Cheer up. You know this isn’t aimed at you. This is just building a record.’ After that, when somebody was beating me up for show, I tended to ignore it. I wanted to appear unflappable. I’d previously learned the hard way that losing your temper in public a) doesn’t work; b) compels you to say something you will later regret; and c) makes you look like an idiot. It was much better for me to handle confrontations and personal attacks by going off alone to mutter to myself.”

Despite all the strategies and initiatives of the PHS, its image didn’t improve until April 1984 when the AIDS virus was isolated by a team at the National Cancer Institute (a division of NIH) and another group working independently at France’s Pasteur Institute. In making the announcement, Secretary Heckler singled out the contributions of Dr. Robert Gallo of the NCI, Drs. James Mason and James Curran of the CDC and Dr. Edward Brandt, Jr. “Under his leadership,” she said, “the PHS effort in public education and understanding has substantially reduced the incidence of fear” and “the panic, which, for a time, began to spread through American cities, has quieted.”

In the ensuing days, it must have occurred to Brandt, as a student of good timing, to announce his resignation. But, he had decided to serve out Ronald Reagan’s first term. There was still plenty to do, including quelling another controversy started by Heckler when she announced that an AIDS vaccine would be ready for testing within two to three years. “We all advised her not to say that,” Wyngaarten said. “We couldn’t begin to promise such a thing. We were just beginning to understand the virus.”

In the summer 1984 Brandt, Wyngaarten and NCI staff decided to put more emphasis on figuring out how to diagnose AIDS at a preclinical level to shoot for eliminating it before the virus replicated to the point of no return. “By the time we can

identify it today, there’s not much of the immune system left,” Brandt said.

At a meeting of the PHS AIDS task force one day, someone mentioned that a book on the history of AIDS had just been printed. Could a made-for-TV-movie be far behind? Who would play Ed Brandt? One of Brandt’s staff said: “Tom Selleck.” Brandt smiled ruefully and said no, it would more likely be Andy Griffith.

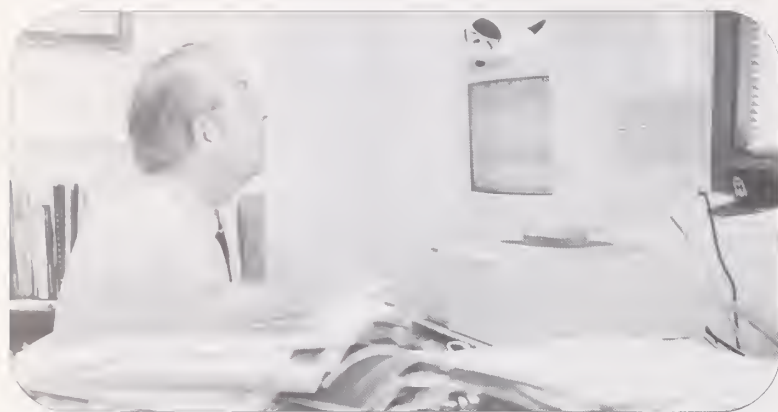
Later that summer, after some discreet inquiries had led to “sort of a fraternity-style rush,” by top University of Maryland officials, Brandt accepted an offer to become chancellor of the university’s Baltimore campus, effective January 1, 1985. Heckler made the announcement in October. It was time to go, he said. He was tired, always tired. For nearly four years, his days almost invariably had begun between 7 and 7:30 a.m., meeting for an hour with his top staff, cramming for the day ahead. He worked through the day — lunch involved work whether it was eaten in or out — until about 6 p.m. If Brandt didn’t have to attend a cocktail party (an extension of the workday), he took a couple of hours of work with him to his Bethesda home, on the campus of the NIH.

He worked some every weekend, mainly on the routine stuff that accumulated when he was away from the office (about a week a month). This accumulation was the reason why he couldn’t afford a vacation, and even holidays were a “mixed blessing” because it gave others the chance to work, and “I am the beneficiary of their labor on the first day back.”

He acknowledged his new post (and conversely, his resignation) in a characteristic manner one day at a bi-weekly meeting of top PHS officials. Just before the 9:30 a.m. meeting began, Brandt put on a white housepainter-style cap reading TERPS (the abbreviation of the Maryland Terrapins). When his successor was named, Brandt called to wish



This is about a week’s worth of papers and reports Dr. Brandt receives in the mail.



Dr. Brandt works at his computer with "Snoopy" amid stacks of reports he receives constantly in the mail.

him well, as all six of Brandt's predecessors had called to wish him well. Though Brandt can't remember if he gave the new man any advice, (he would not have unless specifically asked), he clearly had thought about it, for in November 1984 in response to a question about giving advice, Brandt replied unhesitatingly:

"Time is limited but the problems aren't. Set priorities. And in doing that, don't let the urgent crowd out the important. There are always demands to look at this piddling problem or that because somebody down the line doesn't want to make a decision.

"Your friends make more demands on your time than your enemies and it's hard to turn down requests on the basis of friendship. But you have to learn to turn them down. A one-hour speech in Los Angeles, in reality, takes two days."

"Figure out the strengths and weaknesses of your staff and then trust their strengths by delegating responsibility.

"Don't let the criticism get to you. Don't brood over bad editorials or because you got shafted on 20/20. Otherwise, you start hunkering down, avoiding making hard decisions. Sometimes you have to make decisions when you know that every option has significant deficits associated with it."



Baltimore was a different kettle of fish. First, as chancellor, Brandt presided over a campus of seven professional schools, including a law school. From the beginning he was told that the Maryland assembly takes an up-close-and-personal interest in the campus. But the abstract was transformed to concrete early after Brandt had an emergency medical dispatcher fired after showing up for work drunk and then sleeping through some 911 calls. A group of legislators

pronounced the firing "unfair" and within three days the former dispatcher was rehired, though at another position.

It was, after all, a short drive to Annapolis (the state capital) and Brandt began making that drive about once a week, to meet with legislators, the governor or members of his staff, or other state officials. In addition to stumping for more state dollars, Brandt taught classes on public policy, helped lead the successful effort to privatize the teaching hospital, oversaw the development of a new law school curriculum (which Ed pronounced fascinating) and by using his contacts from his prior employment, tripled the amount of outside financial support during his four plus years. He and his wife Pat frequently entertained students, faculty and supporters in the chancellor's fifteen thousand square foot house.

One of Brandt's main missions was to tout the quality of the education and increase the public's visibility of the Baltimore campus in a city and state traditionally associated in the citizen's mind with excellence in private institutions. It didn't hurt campus visibility that Brandt also spent so much time providing public testimony for the state health department on AIDS, smoking and other health issues. After saying that Maryland had not faced AIDS issues in a serious way, Brandt was named chairman of the Governor's Task Force on AIDS. Early on, after he testified about the importance of confidentiality at an AIDS-related hearing, a member of the audience sought him out and spit in his face.

That isn't why the Brandts left Baltimore, however. "While I liked the people I had contact with, they always considered me an outsider, a Texan usually. And people don't trust one another up there very much. It's too crowded; never a place to park and always a line to wait in. After a few years, and at age 56, I just decided I'd much rather live in Texas or Oklahoma."

In 1988, opportunity knocked. After the dean of the OU College of Medicine resigned, Brandt was contacted. Would he be interested in the job? Having recently turned down two good jobs in the Washington, D.C. area, Brandt demonstrated that if he had ever had Beltway Fever, it had ended. He was eager to return to his native city and serve his alma mater despite his rather dour view that state support for higher education generally and the College of Medicine specifically always had been poor and likely would not improve much.

Nevertheless, he was eager to do what he could to improve the college's visibility and quality, particularly in research. For their part, OU officials and regents must have been practically drooling over the prospect of having in place a dean with

such a sterling track record and connections. Brandt began his appointment as executive dean in May 1989. He spent a little over three intense years pursuing the goals of attracting funding and attention, and succeeded extravagantly outside of Oklahoma.

The college put on a big molecular biology symposium underwritten by the Presbyterian Health Foundation. Brandt got an all-star line-up of scientists to attend and participate, including Jim Watson, co-founder with Francis Crick of the three dimensional double helix model of the DNA molecule. "Every big stick I brought in was impressed with our facilities and our people," Brandt said. "The word in time was bound to spread. The idea was to turn the spotlight on Oklahoma. Why would all these big shots be here if something wasn't going on?"

Assuredly, something was going on, but the more accurate answer to Brandt's question was because Ed Brandt had invited them. The new dean hadn't been in office long when he got a call from the Robert Wood Johnson Foundation; Ed, as assistant secretary, had sat on one of their advisory boards. Would the college be interested in pursuing these lines of research. Yes, indeed, answered Brandt, who at one time had more than half a million dollars annually in researching funding from the Johnson Foundation.

That wasn't all. He called his friends and colleagues at the NIH and private foundations. The result over his tenure was amazing. Research awards to the College of Medicine in 1989 totalled approximately \$11.7 million. Of that, about \$1.3 million came from foundations. The amounts increased throughout Brandt's tenure as dean. In 1992, total research funding was \$22.2 million, with \$6 million from foundations. Brandt says the faculty should get the credit, and those who know him best know this is not a disingenuous remark. "My role was making it easier for them to do their work."

Brandt had been the dean of the medical school in Galveston, but he found the OU position markedly different. The issue there was academics and Brandt spent most of his time developing faculty, research and the curricula, changing admission patterns to allow for more women and minorities. "Money wasn't a big problem," Brandt said. "Higher ed was the star in Texas in those days." At OU in the early nineties, the monetary problems "were so overwhelming that they consumed my time. After three years I was getting tired of it."

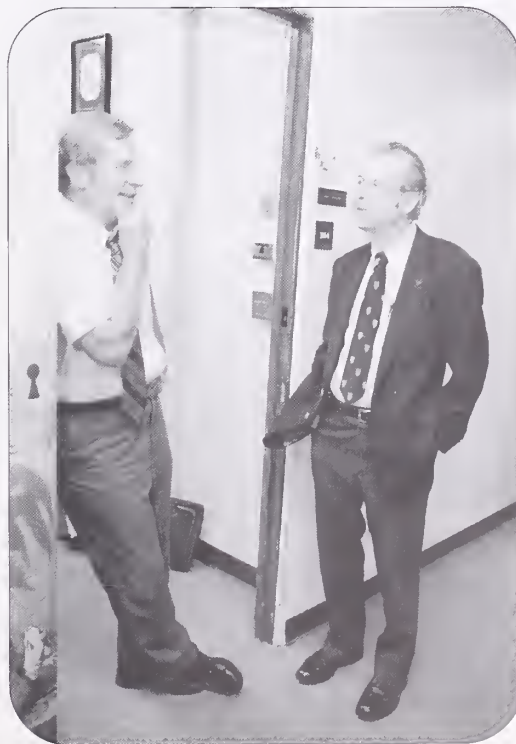
In mid-1992, when the Health Sciences Center provost's position became available, Brandt was asked by several faculty to apply. "I thought, I've

done that before (at Baltimore) and I can do it again." He applied, went through the interviews but realized after a time that his enthusiasm for the job "wasn't very great. It probably showed. So I withdrew my name from consideration. I was 59 years old, knew I didn't have that much time left in academia so I asked myself, 'What do you really want to do?'"

The answer, conveniently, was just across campus. In 1991, Brandt and Dr. Bailus Walker, dean of the College of Public Health, had created a center for health policy in the latter man's college. Since a director had not been hired, Brandt decided to resign as executive dean and apply for the position. He became the center's first director in August 1992.



Brandt had the luxury of being able to write his own job description. After almost thirty years as an administrator, he wanted to return to his first love, teaching. He would not only teach classes in public health policy — often from an insider's perspective — he would also develop the courses. One of the first was a course on public policy issues swirling around HMOs. Over the years as the course has evolved, it has attracted a variety of students including practicing physicians and nurses.



Dr. Brandt engages in a little lighthearted hallway conversation with colleague Dr. Robert Broyles.



Enjoying some time at home, Dr. Brandt is surrounded by his dogs (from left) Roxie, Buddy, Suzie and Buster.

His second goal for the center was to serve Oklahoma by contracting with state agencies to perform useful studies. Five years ago, Brandt contracted with the Department of Human Services to conduct an exhaustive analysis of the Medicaid program, which at the time was administered by DHS. Some of the findings ran counter to widespread popular beliefs, such as one that unwed mothers were draining Medicaid. For years, this enduring myth had cast DHS in a negative light. Actually, seventy percent of Medicaid funding was being spent on the elderly for nursing-home care and end-of-life medical care. This report, indicating that the elderly population was growing at a rapid rate, also

included recommendations for preparing to deal with the increased demand for services.

Brandt does not do the studies himself; he contracts with others for that. He is the middle man with the reputation and the experience for getting things done right. The prestigious Institute of Medicine, based in Washington, D.C., asked him to chair a committee charged with evaluating rehabilitation science and engineering. (Ed is one of two Oklahomans who have been selected for membership in the institute.) When he demurred, saying he knew nothing of the field, he was told by IOM staff that he would make sure that a credible report was developed. It was.

Today at age 65, he has no intention of retiring. "I don't play golf or have hobbies like other people my age, except for reading mysteries. I want to continue doing what I've been doing for as long as I am tolerated. I like being of service, of contributing."

He is on so many boards, task forces and committees that these mainly voluntary positions practically constitute a full-time job. He has so many opportunities — public and private, national, state and local — that he can't accept all the offers. Yet he loves the variety and thrives on the challenges of being both a perennial student and teacher. He works at the same measured pace that he always has, which brings to mind a remark made about Brandt by one of his assistants in Washington in 1984. "Many of our colleagues in the Public Health Service have boats for recreation. They go sailing in the Chesapeake. Well, the PHS is Ed's boat. And, in all my years here, it has never been in better shape."

Bowling Related Injuries of the Hand and Upper Extremity; a Review

Stephen Miller, MD; Ghazi M. Rayan, MD

Bowling is one of the oldest and most popular indoor sports. The earliest evidence of bowling dates back to ancient Egypt. Archaeologists discovered equipment for a game resembling bowling. Modern forms of bowling appeared in England as early as the 1100s. Bowling can cause a variety of hand and upper extremity injuries either due to acute or reparative forces. Greater number of such injuries is being encountered as the popularity of the game has increased. The goal of this article is to present an overview of bowling related injuries, their mechanisms along with preventive and treatment measures.

The Equipment and Game:

The bowling lane is 62 feet, ten inches long, and 22 to 41 inches wide. Bowling pins are made of maple, but may be all wood or plastic coated. Each pin stands 15 inches high and weighs from 46 to 58 ounces. The ball is made of hard rubber composition, but plastic balls can be used. Balls used in leagues cannot be more than 27 inches in circumference and must weigh between 10 and 16 pounds.

The bowler's hand and fingers should be measured to determine the proper grip for the ball. Bowling requires inserting the thumb, long, and ring fingers into three holes within the ball. Most bowlers use a three finger grip (thumb, middle finger, and ring finger), but some use the two finger grip (thumb and middle finger). The bowler's thumb and fingers are inserted into the holes to the thumb metacarpophalangeal and proximal interphalangeal joints. While holding the ball the thumb interphalangeal joint is in neutral position whereas the metacarpophalangeal joint is in flexed position. The long and ring fingers' distal inter-

phalangeal joints are in neutral position and the proximal IP joints are flexed. Some professional bowlers use a fingertip grip in which the digits extend into the holes only to the level of thumb interphalangeal joint and distal interphalangeal joints.

The bowler rolls the ball by stepping forward on the right foot, extending the ball behind the back and bringing the ball into the backswing as the left foot comes forward. As the ball reaches the top of the backswing, the right foot moves forward again. The player goes into a slide on the left foot and starts the downswing. As the slide ends, the bowler releases the ball thumb first. The right hand then follows through and the swing is completed with the follow through.

Hand Related Injuries:

The most frequently reported upper extremity injuries among bowlers are hand related. Dobyns et al² reported hand problems as common among bowlers. The interphalangeal joints of the long and ring fingers may become slightly stiff and enlarged. The thumb may develop problems with nail breakage, paronychia skin irritation, blistering or cracking of the skin, and scarring of the subcutaneous tissues. Vascular injury, i.e. true aneurysm of the digital arteries, in particular those of thumb, may also develop among bowlers.¹ Bowling related conditions in the hand can affect the skin causing eczema and callouses from repeated pressure and friction against the ball. Compression neuropathy of the digital nerves are very common and usually involve the thumb. Although compression neuropathy of the thumb digital nerve can be encountered from using scissors and from splinting,¹¹ bowling is probably the most frequently reported cause of thumb digital nerve compression and hence the condition has become known as "bowler's thumb."^{2-4,6-9,15,17}

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Neuropathy of the digital nerve of the thumb is often due to direct mechanical compression, causing traumatic neuroma of the ulnar digital nerve.¹⁴ The nerve, which lies superficial to the sesamoid bone within a thin layer of subcutaneous tissue, is particularly vulnerable to repetitive friction between the thumb and the ball. This entity is characterized by fibrous tissue proliferation within and around the nerve.

Minkow and Bassett¹⁰ reported three patients who presented with a tender mass at the palmar ulnar aspect of the thumb metacarpophalangeal joint. Their symptoms of pain, paresthesias, and numbness were exacerbated with bowling. One patient was treated successfully with rest and two patients were treated with neurolysis of the ulnar digital nerve, but had residual symptoms and one patient had to give up bowling. Their recommended approach to treatment of bowlers thumb is discontinuing the repetitive trauma with rest and modifying the grip of the ball.

Dobyns, et al² reported on 17 avid bowlers who developed symptoms consistent with "bowler's thumb." Eight patients were successfully treated with conservative management. Those patients who gave up bowling had no further complaints. Patients who continued to bowl experienced difficulty and required some degree of decreased participation and/or grip modification. Of the seven patients who were treated surgically, six returned to bowling within two years. Two patients were operated on for residual symptoms following surgery at another institution and their pain was relieved by proximal neurectomy with residual sensory deficit. Five patients were treated with neurolysis and a variety of other procedures including removal of proliferative synovitis arising from the sheath of the flexor pollicis longus tendon.

Dunham et al⁴ reported two cases of "bowler's thumb" that presented with painful mass and sensory symptoms. The patients' symptoms improved following neurolysis and dorsal nerve transposition with subsequent change in grip using enlarged padded thumb holes.

The symptoms of mild cases of "bowler's thumb" can be alleviated by rest, cessation of the aggravating activity and use of a thumb guard. Adjunctive treatment may include oral anti-inflammatory agents, local steroid injection adjacent to the nerve and immobilization. Surgery should be the last resort and considered only for severe, intractable cases. Surgical treatment of ulnar digital neuroma of the thumb is neurolysis and adductor muscle flap. For radial neuroma, an abductor pollicis brevis muscle flap can be used. Both muscles are distally based.¹⁶

According to Retting,¹⁵ the key to prevention is to modify the grip, delivery, and fit of the ball holes. Partial thumb insertion (three fourths insertion) or back-setting the thumb hole to increase the extension and abduction thumb stance can relieve local pressure. Upon return to the sport, a well-padded splint can provide needed protection. A gradual increase in time spent bowling and play intensity may also be beneficial.

Stenosing tenosynovitis is an inflammatory process of the flexor tendon sheath in the area of the metacarpal head. Tendonopathy of the flexor digitorum superficialis and thickening of the A1 pulley leads to pain and often triggering with occasional locking of the finger. In the thumb, a similar process takes place in the flexor pollicis longus and the proximal annular pulley in the area of the sesamoid bones. This condition was reported by Rayan¹² to affect all digits involved in bowling including thumb, middle and ring fingers. Two patients were reported to develop stenosing tenosynovitis with triggering, one in the thumb and the second in the ring and long fingers. The ring finger had both the conventional proximal stenosing tenosynovitis and the less common distal stenosing tenosynovitis¹³ at the A3 pulley level. These patients' symptoms did not improve with nonoperative treatment, but responded favorably to surgical release.

Stenosing tenosynovitis in bowlers is due to repeated trauma, possibly as a result of two mechanisms. The first is direct pressure from the weight of the ball. This pressure is applied to the metacarpal head palmarly while the bowler's hand is underneath the ball, leading to the classic stenosing tenosynovitis of the ring and long fingers. The second mechanism is due to direct pressure from the sharp margin of the hole that occurs while throwing the ball. This leads to stenosing tenosynovitis of the thumb and long and ring fingers in the A3 pulley area with involvement of the flexor digitorum profundus tendon. This distal stenosing tenosynovitis is uncommon and different from the classic more proximal stenosing tenosynovitis that involves the flexor digitorum superficialis and A1 pulley area.

Wearing protective bowling gloves can prevent skin disorders and provide padding over the metacarpal heads and therefore prevent the classic stenosing tenosynovitis of the A1 pulley area. The use of a ball with large holes, rounded smooth hole edges, or rubber inserts can prevent stenosing tenosynovitis of the thumb and the less common distal type of the long and ring fingers.

Fakharzadeh⁵ reported a case of a ring finger middle phalanx stress fracture occurring in a semi-professional bowler. The patient had pain aggra-

vated by bowling and local tenderness over the middle phalanx. X-rays showed callus formation in the middle phalanx and a transverse lucency through the radial cortex of the mid shaft of the middle phalanx. Rest from bowling and modification of the holes in the ball to alleviate stress on the finger relieved the patient's symptoms and allowed him to return to bowling.

During delivery of the ball, an arcuate motion of the entire upper extremity is produced, adding considerably to the force transmitted to the fingers. Spin delivery can also place torsional stress to the distractive force on the fingers. Stress fracture should be considered in the differential diagnosis as a cause for finger pain associated with repetitive activity. Comparative films of the contralateral hand may aid in the diagnosis. Rest and grip modifications should result in a successful outcome. A semi-professional bowler was also seen following dislocation of the thumb metacarpophalangeal joint when the thumb was trapped in the hole and the ball could not be released during delivery. The hyperextension injury led to posterior dislocation which was treated nonoperatively.

Miscellaneous Upper Extremity Injuries:

Bowling related injuries of the wrist include triangular fibro-cartilage complex (TFCC) tears, distal radio-ulnar joint instability and tenosynovitis of the first extensor compartment. These conditions are usually reported in bowlers, especially during tournament seasons. Bowling related injuries of the forearm, elbow and shoulder are less common than those of the hand and wrist, yet they are occasionally encountered. These include chronic compartment syndrome of the forearm and lateral epicondylitis. Nonoperative treatment includes nonsteroidal anti-inflammatory medications and long arm splint immobilization for ulnar wrist ligament injuries. Short arm splint immobilization and local steroid injections can be used for deQuervain's tenosynovitis of the first extensor compartment or for lateral epicondylitis. If these measures fail and the patient's symptoms persist, then arthroscopic debridement, reattachment of the TFCC or release of the first extensor compartment will be indicated.

Preventive measures can reduce the prevalence of upper extremity bowling related injuries. Careful history and thorough physical examination are essential for accurate diagnosis of these injuries. Early diagnosis and timely treatment are important for achieving overall satisfactory outcome and early return to sporting activities.

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The Authors

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Twenty-Nine-Year-Old Man with Sore Throat and Anorexia: A Clinicopathologic Correlation Conference from the University of Oklahoma College of Medicine

Matthew Byers, MD; Max G. Walter, MD; Keith Clark, MD; Anna Sienko, MD

Case Presentation Matthew Byers, MD Department of Otorhinolaryngology

A 29-year-old man was seen in the ER at another hospital complaining of sore throat and anorexia of one week duration. He was diagnosed with acute pharyngitis and treated with erythromycin and oxycodone/acetaminophen.

He presented to University Hospital four days later with worsening sore throat, odynophagia, dysphagia, bilateral painful neck swelling, dyspnea, and right-sided pleuritic chest pain. Additional symptoms included right upper quadrant pain, nausea, vomiting, subjective fever, and an abrupt onset of foul taste in the back of his throat two days prior. He denied changes in bowel habits or a productive cough.

His past medical and surgical history included an unknown "stomach problem" 10 years previously requiring endoscopy, but he denied persistent or recurrent problems. The patient had been exposed to TB about 4-5 years previously but his PPD was negative. He had smoked 1-2 packs per day, was a social drinker and admitted to marijuana use on a daily basis, but he denied IV drug use and allergies.

The patient was well developed but appeared quite ill. He was tachypneic with shallow respirations and in moderate distress. His temperature was 38.4°C, blood pressure 128/85, pulse of 129, respiratory rate 35.

Examination of the head and neck revealed a normal sounding voice with no stridor, moderate swelling and tenderness of his left lateral and posterior neck with the tenderness extending to the left supraclavicular region. This entire region was

indurated with loss of normal landmarks and crepitus without fluctuance. The right side of the neck showed minimal swelling in the lateral portion with some crepitus. Lymphadenopathy was present in levels 2 and 3 bilaterally. The trachea was midline and good carotid pulses were present on the right, whereas the left could not be assessed because of the swelling. He had equally round and reactive pupils and his extraocular muscles were intact. His ears were normal. The oropharynx had thick clear secretions and the retropharynx was erythematous but not bulging. The tonsils appeared normal as did the floor of the mouth and remaining oral cavity. The dentition was normal. Fiberoptic examination revealed fullness of the left lateral and posterior pharyngeal walls as well as the pyriform sinus. There was no pus or lacerations seen in the pharynx. The airway was generous and the true vocal cords were normal.

The patient was tachypneic with shallow respirations. Rales were noted in the upper right lobe, decreased breath sounds in the lower right lobe; the left chest was clear. Cardiovascular examination revealed tachycardia but otherwise normal sinus rhythm; no murmurs were heard. The abdomen was soft, however the patient did have voluntary guarding upon palpation of the right upper quadrant. Bowel sounds were hypoactive but no masses or hepatosplenomegaly were noted. Peripheral pulses were palpable and there was no edema of his extremities. His neurological exam was normal.

Laboratory tests were performed (Table 1). After clinical assessment and radiography, the patient was diagnosed with a left parapharyngeal and retropharyngeal abscess with mediastinitis secondary to an acute pharyngitis.

The patient was immediately taken to the OR for incision and drainage of the neck abscess, a

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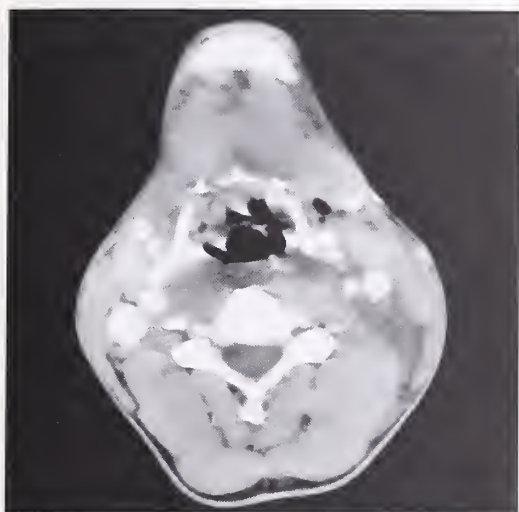


Figure 1

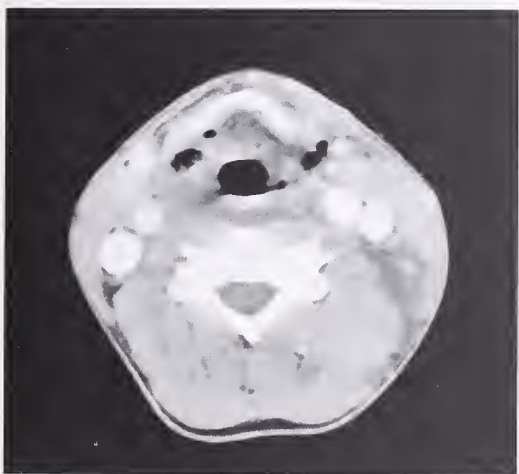


Figure 2

tracheotomy and a placement of a right chest tube for empyema. He was placed on ampicillin-sulbactam and aztreonam. The patient was transferred to ICU where he remained intubated and ventilator-dependent and hemodynamically stable. Interoperative wound cultures returned positive for beta hemolytic streptococci.

Two days post-op, his pulmonary status deteriorated with increasing patchy infiltrates and bilateral effusions with oxygen saturations dropping to 80 percent. His condition was further complicated with the development of atrial fibrillation with rapid ventricular response. An echocardiogram revealed acute pericarditis with a small effusion. IV diltiazem was initiated for medical cardioversion. A repeat CT scan was performed due to persistent tenderness and swelling in the left supraclavicular region and persistent leukocytosis and fever. CT revealed a persistent ab-

scess at the thyrohyoid level and left posterior triangle and a new left pleural effusion. A barium swallow was also performed and was negative for an esophageal tear.

His condition continued to worsen with an increased leukocytosis. A left pleural effusion requiring chest tube placement appeared and the abscess recollected in the posterior triangle of the neck. The abscess was drained at bedside and clindamycin was added. By post-op day three, the patient had developed adult respiratory distress syndrome (ARDS). A bronchoscopic evaluation showed essentially normal airways with some mucous in the left lower lobe.

The final bacterial cultures grew beta and gamma hemolytic streptococcus, peptococcus and a bacteroides species, nonfragilis. Gentamicin was added; unasyn and aztreonam were discontinued.

He continued to deteriorate and by post-op day six, the patient developed sepsis. A repeat CT scan showed fluid collection in the left lateral neck, mediastinum and lungs. A repeat incision and drainage of the neck was done, and the mediastinum was drained through a right thoracotomy. A CT scan on the following day revealed persistent loculation in the area of the great vessels which again was drained at the bedside. His hypotension and hypoxemia persisted and multi-organ system failure developed. A repeat echocardiogram showed a large pericardial effusion which was drained of approximately 300 cc serous fluid. That night, the patient developed severe hypoxia, hypercarbia and acidosis refractory to medical treatment. He subsequently developed third degree heart block and then ventricular fibrillation, and finally died that evening approximately 10 days after admission.

Radiology Max G. Walter, MD Department of Radiology

This patient had a number of studies. I will discuss the initial radiological studies in some detail and summarize the remainder.

The AP and lateral neck films on the day of admission demonstrated a collection of air in the retropharyngeal soft tissues at the C5 and C6 levels with narrowing of the supraglottic airway and marked swelling of the right side of the neck. A small gas collection at the base of the neck was

Table 1. Laboratory Values

On Admission	
WBC	18
Hemoglobin	16
Hematocrit	47
Platelets	166
Na	132
K	3.7
Cl	93
HCO ₃	20
BUN	16
Cr	1.1
Glu	169
Alb	4.2
LDH	215
CK	413
ALK	27
AST	20
Amylase	20
Lipase	< 20
Urinalysis:	
Specific Gravity	1.025
Protein	trace
Blood	trace
Glucose	negative
Ketones	negative
Nitrites	negative
Drug Screen	cannabinoids, ASA
HIV Screen	
	negative

noted on the left side. The chest films revealed left lower lobe consolidation partially obscuring the diaphragm and the descending aorta, and the density was consistent with effusion and pneumonia. The right costophrenic sulcus was blunted consistent with a small right pleural effusion. Other lung areas were clear and there was no evidence of mediastinal air. The abdominal films obtained at this time were not contributory.

Shortly after the above films were obtained, computed tomography of neck and chest was performed and revealed prevertebral soft tissue swelling from C2 through C6 with the swelling most pronounced at C5. Gas was noted in the retropharyngeal tissues at C6, in the pretracheal and prelaryngeal soft tissues, as well as around the right carotid sheath. Fluid and a few lymph nodes were noted in the posterior cervical space (PCS). At C3, both right and left fascial planes showed small collections of gas. At the hyoid bone level, C4, (Figures 1, 2) fluid or pus was present in the left PCS extending anteriorly around the left carotid sheath, medially into the retropharyngeal space or danger zone with edema and inflammation extending to the right carotid sheath to involve the right prevertebral space, including the right longus colli muscles.

At C6 to C7 level (Figures 3, 4), the fluid or pus was continuous from the left PCS to the retropharyngeal space with infiltration of the pre-epiglottic space. The aryepiglottic folds were edematous, gas was noted at the level of the thyroid cartilage and around the larynx with extensive fluid or pus in the buccopharyngeal space. The chest CT (Figures 5-9) demonstrated gas around the trachea and esophagus with inflammation around the great vessels. The area behind the heart revealed contained pus adjacent to the esophagus, gas and pus adjacent to the descending aorta with pus extending behind the right atrium. Extensive consolidations of the lower lobes of the lungs were noted as well as gas in the right pleural effusion suggesting empyema. The upper lobes showed extensive airspace disease and a small right pneumothorax was demonstrated. The distal esophagus was fluid-filled and there was periesophageal gas at the esophageal hiatus. Below the diaphragm, the stomach was massively distended with fluid.

In summary, the neck and chest studies revealed extensive deep space infection and abscess formation of the neck and mediastinum, right pleural effusion and/or empyema, small right pneumothorax, and extensive bilateral airspace disease consistent with pneumonia or ARDS. A definite point of viscus perforation was not demonstrated.

Follow-up films obtained after placement of a right chest tube, tracheotomy tube and drains (fourth hospital day) showed resolution of the right pneu-

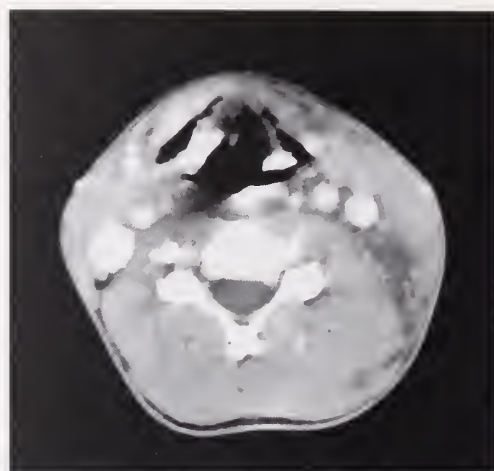


Figure 3

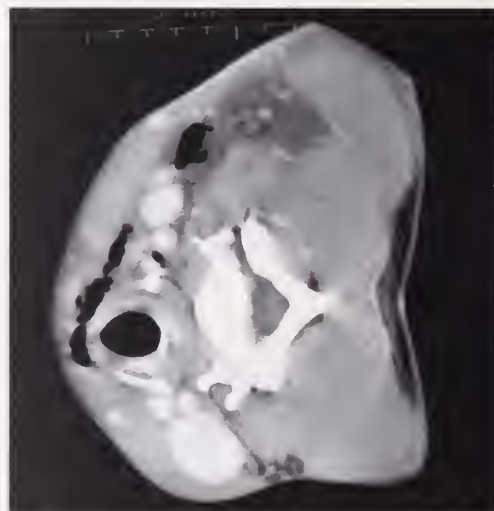


Figure 4



Figure 5

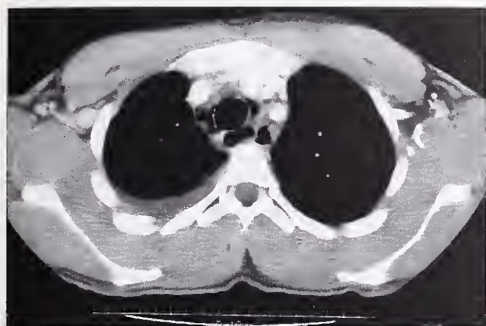


Figure 6

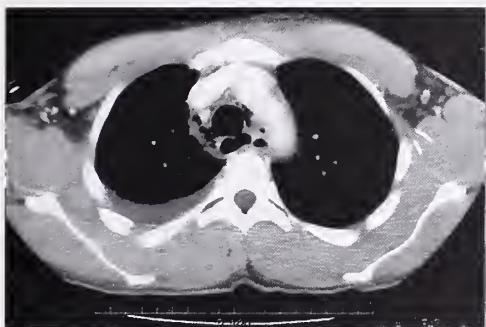


Figure 7

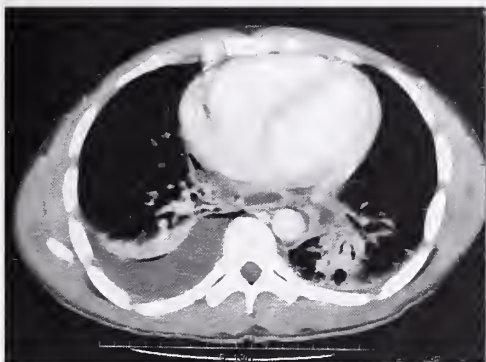


Figure 8

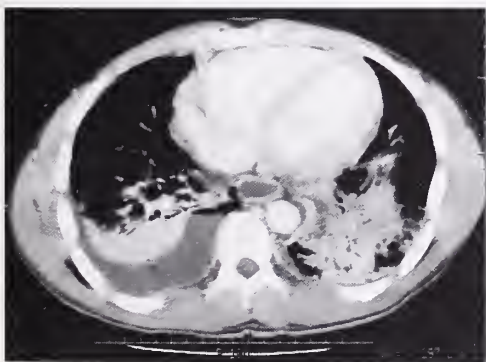


Figure 9

mothorax and effusion. However, there were increased changes of deep neck cellulitis, retropharyngeal abscess, left PCS abscess and a new right paratracheal fluid collection. There was a new large left pleural effusion or empyema, and the retrocardiac and periesophageal fluid collections had increased in size. There was pericardial effusion. The gastric distention was no longer present and a nasogastric tube was in place. Loculated paraspinal fluid was demonstrated and there were increased pulmonary consolidations bilaterally. Abdominal films on the same day demonstrated ileus and a barium swallow did not show perforation of the esophagus. On the sixth hospital day, repeat CT of the neck and chest showed increased generalized infection with loss of tissue planes. All of the enumerated fluid collections persisted. Pericardial fluid and probable pericarditis was confirmed. The air space consolidations had increased.

Case Discussion

Keith Clark, MD

Department of Otorhinolaryngology

This is a difficult case to pull together, to understand why he got what he got, and why he did not respond to all or any of the treatment. First, I will go through a discussion of the anatomy of neck abscesses.

What we have to consider first is where the port of entry might have been. He came to University Hospital with a sore throat of a week's duration and had already been treated with erythromycin for presumed pharyngitis. At the outset, my first thought was that he had tonsillitis or bacterial pharyngitis; dental pathology had to be considered. I do not think this case was of dental origin although patients with dental abscesses can develop these kinds of problems. We must rule out strangulation or some minor neck trauma. We have seen cases of basketball players falling on their necks or with history of an elbow in the neck. Apparently minor injuries, yet on endoscopy, we found tears in the hypopharynx or the esophagus. Could something have happened to this patient that involved a perforation, such as the hyoid bone getting pressed into the posterior wall causing a little tear and the sore throat was not the real problem? Foreign bodies, especially fish bones, can cause a small hypopharyngeal tear leading to this series of events. The other consideration is the duration of the infection. Could this patient have had a chronic pulmonary problem, as suggested by the chest x-rays, in addition to the acute onset? Antibiotics given prior to his presentation here may have suppressed the cellulitis but led to abscess formation. His internal examination showed erythema, however a bluish tinge in the throat is suspicious for abscess involve-



Figure 12: Autopsy specimen of heart (posterior aspect) showing diffuse fibrinous adhesions/material on epicardium left ventricle.

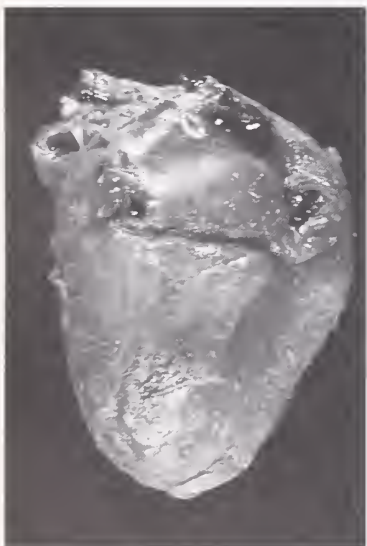


Figure 13: Autopsy specimen of complete lung with gross abscess seen in left lower lobe.

ment of the carotid sheath in the peripharyngeal space with concurrent rupture and hemorrhage of the carotid. This can lead to oropharyngeal bleeding or bleeding through the ear canal.

Infection of dental origin is common. When the floor of the mouth is involved in Ludwig's angina, the airway can be difficult to manage without tracheotomy. Masticator space abscesses around the mandible can occur from wisdom teeth extractions. Abscess formation in this area can extend into the lateral pharyngeal space. For example, an abscess of the mandible space occurring as a result of a dental infection can quickly connect with the lateral pharyngeal space and then proceed inferiorly into the deeper neck, tracking down into the mediastinum.

A tonsillar abscess can present as peritonsillar causing displacement of the uvula. This patient's uvula was not displaced, however his lateral wall was, so his tonsils were also displaced, yet this was not a peritonsillar abscess. These lesions are easily drained intraorally and do not progress. If they are not treated, a lateral pharyngeal abscess can develop and then descend into the chest, then trismus is usually severe and tips you off that you are dealing with more than just a peritonsillar abscess. Clinically you should see involvement of the palate and tonsil, not the posterior wall or posterior pillar. In this patient, I would have expected to see some displacement of the tonsil and possibly some displacement of the palate laterally, but not the uvula. I would not expect to see inflammation localized to the soft palate.

The pharyngeal spaces, which include the buccal, pharyngeal, retropharyngeal, lateral pharyngeal or peripharyngeal, periesophageal and peritracheal spaces, are all potential areas of bacterial invasion. All of these spaces connect and infection can spread from one space to the other.

The retropharyngeal space is located posteriorly. The alar fascia divides this space, however, it is not always present. When it is present, this alar fascia extends from the base of the skull downwards and ends at about the level of the carina. A retropharyngeal abscess, therefore, can potentially ex-

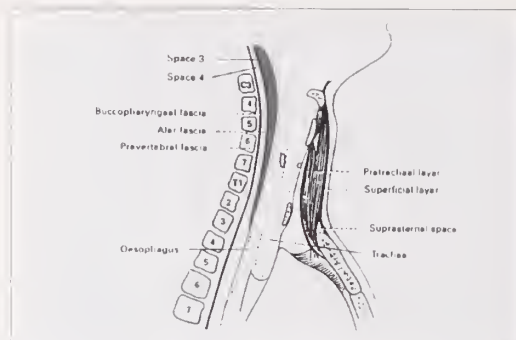


Figure 10: Diagrammatic representation of the retropharyngeal spaces and their boundaries. Shaded area represents the "DANGER ZONE."

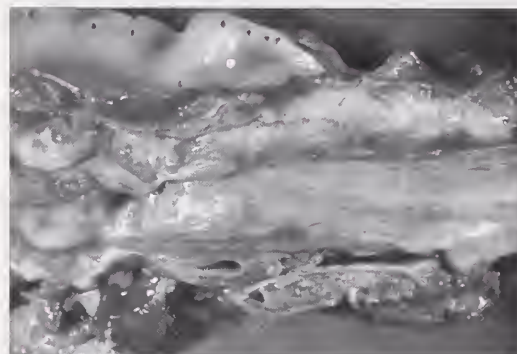


Figure 11: Autopsy specimen opened in the posterior aspect showing abscess tracking medial to aorta and anterior to esophagus.

tend to the base of the skull or descend down to the level of the carina. The alar fascia as mentioned divides the retropharyngeal space, and the potential space that is created when the fascia is present is the perivertebral space which extends all the way down to the diaphragm. An abscess in this area, either because there is no alar fascia or because the fascia has been penetrated, can therefore extend down to the diaphragm and even into the abdomen. Infections in these spaces are most often contained, spreading between the different spaces but without extension. In this patient, I think the lateral pharyngeal space was involved with breach of the alar fascia, if it was present, with abscess extension into the perivertebral space (also called the danger zone), and then spreading to the periesophageal, peritracheal and mediastinal areas.

Treatment, which I will discuss briefly, is aimed at drainage of the abscess. The lateral pharyngeal space should be drained by a big incision usually T-shaped or a horizontal incision if the abscess is superior. An extended T can also be used along the front of the sternocleidomastoid muscle, beginning behind the submandibular gland, medial to the mandible right back to the prevertebral fascia and down inferiorly.

Pathology

Anna Sienko, MD

Department of Pathology

At autopsy, the body was that of a young male who was height/weight proportionate with no gross obvious developmental abnormalities. The most significant findings in the external examination were the marked edema of the neck region and the presence of multiple Penrose drains, approximately six in number, located in a semicircular fashion in the neck going in a right to left direction. Bilateral chest tubes were present. Cultures were taken from the areas of the Penrose drains, chest tubes, external nares and from deeper into the nostrils (nasal passages) as mucopurulent material was grossly present.

The body was opened in the standard way and the internal examination revealed a massive abscess tracking approximately 1 cm. wide anterior to the esophagus and medial to the aorta. There were multiple fibrinous adhesions bilaterally of visceral and parietal pleura to the chest wall, lungs to the diaphragm and to the pericardium.

Upon individual organ inspection, the lungs were heavy, weighing over 800 gms. each, the normal weight range being approximately 350 gms. for the left lung and 500 gms. for the right. Sectioning revealed extensive gross mucopurulent exudate and abscess formation within the lung parenchyma. The pericardial sac was completely adherent to the pericardium and had to be peeled off like Saran wrap. The heart itself had dense fibrinous deposits on both the posterior and anterior aspects of the right and left ventricles. Cultures were taken from the lungs, pericardial fluid and pericardium.

Histological examination was most significant from the lung and cardiac tissue. The lung sections showed a diffuse organizing pneumonia with acute bronchopneumonia with diffuse hyaline membrane formation consistent with the clinical entity known as ARDS. Multiple foci of microabscess formation were present as well. The sections from the heart demonstrated features of pericarditis, epicarditis and early contraction band necrosis consistent with early ischemic change or early acute myocardial infarction. The deep soft tissues from the area of the mediastinum showed an extensive walled-off abscess bounded by the esophagus and aorta with diffuse acute and chronic inflammation with necrosis.

Most of the infections in these retropharyngeal areas are mixed, including both aerobic and anaerobic organisms. The most common organisms that are found at original primary or pre-mortem cultures are beta hemolytic streptococci and fusobacterium. Our patient did have positive

pre-mortem cultures of beta and gamma hemolytic streptococci, a peptococcus and bacteroides species. Interestingly, in addition, all of the post-mortem cultures grew heavy growth of *Pseudomonas aeruginosa*. Retropharyngeal abscess in adults is rare and the development of a mediastinitis is even more rare. However, when mediastinitis develops, mortality is as high as 43 percent. Most causes of retropharyngeal abscess in adults are unknown, although cases have been reported following minor trauma to the head and neck due to dental caries and secondary to upper respiratory tract infections. From the literature, risk of retropharyngeal abscess has been associated with low socio-economic status and poor living conditions, IV drug abuse and HIV status. From the history provided, our patient was HIV negative and there were no documented previous infections except the intubated as well as gas in the al presentation of sore throat; no record of previous procedures or trauma.

In summary, the autopsy showed evidence of septicemia with retropharyngeal abscess. At autopsy, we found necrotizing mediastinitis, bilateral pneumonia with abscess formation, pericarditis, epicarditis, early myocardial infarction and multiorgan system failure which included acute renal tubular necrosis.

Selected Readings

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Alzheimer's Disease

AMA Council on Scientific Affairs
Reference Committee D

Objective

This report responds to Substitute Resolution 518, I-96, which asks that the AMA, in cooperation with appropriate medical specialty societies, study Alzheimer's disease (AD) and other dementias, with particular emphasis on their diagnosis and treatment, issues relating to patient and caregiver education, the financing of care of affected individuals, the identification of research needs, and consideration of issues pertaining to the quality of life of individuals with these conditions.

Methods

This report is based on a review of guidelines produced by the Agency for Health Care Policy and Research (AHCPR), the American Academy of Neurology (AAN), the Veterans Health Administration (VHA), and the American Psychiatric Association (APA), combined with review of the latest published literature on AD and related disorders and consultation with experts in the field. This analysis was used as a basis for policy formulation.

Result

The guidelines reviewed were: (1) Recognition and Initial Assessment of Alzheimer's Disease and Related Disorders, published by the AHCPR; (2) Dementia Identification and Assessment, published by the VHA; (3) Practice Parameter: Diagnosis and Evaluation of Dementia, published by the AAN; and (4) Practice Guideline for the Treatment of Patients with Alzheimer's Disease and Other Dementias of Late Life, published by the APA. These documents are targeted for the following audiences: primary care physicians (VHA and AHCPR), neurologists (AAN), and psychiatrists (APA). Only the APA guide makes provision for continuity of care. The literature review revealed that ongoing re-

search into AD focuses on three broad areas: etiology/risk factors, diagnosis and treatment.

Conclusions

AD is a common and costly public health problem. With the increase in life expectancy in the United States, AD is expected to afflict approximately 14 million people within the next few decades. Irreversible dementia takes a heavy economic, social, physical, and psychological toll on patients and families. The financial costs to society are enormous. There is currently no cure for AD, only interventions that can temporarily ameliorate the profound cognitive losses and behavioral manifestations of the disorder. Community services for AD patients and families are fragmented and underutilized. As traditional gatekeepers for services, physicians can encourage more families to use supportive services. Several valuable guidelines exist related to the diagnosis and treatment of AD and related disorders.

Substitute Resolution 518, adopted at the 1996 Interim Meeting asked:

That the American Medical Association (AMA), in cooperation with appropriate medical specialty societies, study Alzheimer's disease and other dementias, with particular emphasis on their diagnosis and treatment, issues relating to patient and caregiver education, the financing of care of affected individuals, the identification of research needs, and consideration of issues pertaining to the quality of life of individuals with these conditions.

Over the past few years several documents containing guidelines and practice parameters on Alzheimer's disease (AD) and related dementias have been published. In 1996, the Agency for Health Care Policy and Research (AHCPR)¹ published a clinical practice guideline for the early

recognition and identification of AD and related disorders; the Quality Standards Subcommittee of the American Academy of Neurology produced practice parameters for the diagnosis and evaluation of dementia in 1994;² and an advisory group, the Dementia Technical Advisory Group (TAG), convened by the Veterans Health Administration (VHA) in April 1997, developed guidelines for the identification and assessment of dementia.³ Lastly, in May 1997, the American Psychiatric Association (APA) published its guidelines for treatment of dementias of late life.⁴ Each of these documents was developed after extensive literature review and with input from experts in the field who served on advisory boards and task forces or as reviewers. The American Medical Directors Association is currently developing guidelines for management of dementia in nursing homes. Organized medicine has taken an active role in these processes and has contributed to both the knowledge base and policy determinations related to AD.

This report reviews and synthesizes the information from the existing guidelines, reviews the most recent findings in the literature relative to AD, and makes policy recommendations based on identification of gaps with respect to patient and caregiver education, financing of care, and research needs.

Background

AD is a chronic, degenerative, dementing illness, the etiology of which is unknown and for which there is no cure. Dementia involves a progressive, multifaceted loss of cognitive and intellectual abilities such as memory, judgment, abstract thinking and higher cortical functions; disorientation with regard to time, place, and person; and difficulty in wordfinding and communication. The loss of intellectual abilities is severe enough to interfere with social and occupational functioning. In many cases, there are personality and behavioral changes. These include anxiety, irritability, agitation, withdrawal, petulance, paranoid ideation that can result in hostility and violence, and nocturnal and diurnal wandering.^{5,6} Although disease progression is highly variable, ranging from two to 10 or more years, persons with AD undergo progressive general debilitation, become unable to care for themselves, and eventually die.⁷ While it is important to understand that the disease does not affect everyone in the same way, the following stages represent the general pattern that the illness follows.⁸

Stage 1: Decrease in energy and spontaneity; minor memory loss and mood swings, slowed reaction and learning; avoidance of new situations.

Stage 2: Slowing of speech and comprehension, loss of train of thought in mid-sentence, forgetting to pay bills, getting lost while traveling. Awareness of loss of control may lead to depression, irritability, and restlessness.

Stage 3: Short-term memory loss; disorientation to time, place, and possibly person; paraphasic speech.

Stage 4: Behavioral disturbances; increasing need for care; incontinence.

Stage 5: Loss of ability to chew and swallow; vulnerability to pneumonia and other illnesses. Frailty precedes coma and death.

Epidemiology

AD is the fourth leading cause of mortality among the elderly in the United States, accounting for more than 100,000 deaths annually. Between 5 percent to 10 percent of the adult population is estimated to be affected by a dementing disorder, and the incidence doubles every five years among people 65 years and older.^{1,9} AD is the most prevalent form of the irreversible dementias, which affect an estimated 3 to 4 million patients, accounting for 60 percent or more of cases.^{10,11} Community epidemiological studies have estimated that as many as 40 percent of persons aged 85 and older have symptoms of AD. It is projected that, with the increase in life expectancy in the United States, as many as 14 million individuals could develop AD within the next few decades.¹² Cognitive impairment is a strong predictor of institutionalization; approximately 50 percent of nursing home residents have a dementing disorder.^{13,14,15} The incidence of AD is higher in women than in men; this is most likely because females live longer than males and therefore have a greater opportunity for disease expression.

Vascular or multi-infarct dementia is the second most prevalent form of irreversible dementia and accounts for 10 percent to 25 percent of cases.¹⁶ Snowdon et al¹⁷ suggest that since both cerebrovascular disease and AD can result in dementia, and the prevalence of both increases with age, a sizable number of older persons might develop dementia as a result of both disease processes. A group of disorders called frontal lobe or frontotemporal dementia, which includes Pick's disease, accounts for about 9 percent of cases. A recently described condition, dementia of the

Lewy body type may account for 5 percent of cases. Other dementing disorders account for much smaller proportions. These include dementia associated with Parkinson's and Huntington's disease, and Creutzfeld-Jakob disease. Variation in prevalence estimates among studies is due to the difficulty inherent in evaluation and differential diagnosis, differing criteria used in epidemiological studies, and the frequency of autopsy.

Anti-inflammatory drugs such as ibuprofen, antioxidants, and estrogen replacement therapy have been associated with delayed onset of and decreased risk for AD in both animal and human studies. However, reports conflict and further research is needed to support or refute these findings.⁹

Potentially treatable causes of dementia include drug toxicity, alcohol abuse, depression, tumors, metabolic disorders, infections, vision or hearing problems; trauma, normal pressure hydrocephalus, and nutrient deficiencies. Estimates of the incidence of these dementias range from two percent to 20 percent of cases.^{18,19,20} Variation in these findings could be explained by the setting in which cases were evaluated; i.e., whether primary or tertiary care settings.

Because AD is the most prevalent form of dementing illness it is used as the prototype for dementia in this report.

Etiology and Neuropathology of Alzheimer's Disease

Numerous investigations using various approaches have provided evidence for a genetic basis for AD. These include family and pedigree studies,²¹ life-table methods, and monozygotic and dizygotic twin studies.^{22,23,24,25} Four loci that play a role in genetic susceptibility to AD have been identified thus far and others are likely to be found. Mutated genes on chromosomes 1,²⁶ 14, and 21 have been linked to the familial form of the disease, which has early onset, before age 60.^{27,28} APOE-4 (apolipoprotein E-4), which has been found on chromosome 19, is implicated in the risk for late- and early-onset familial AD, as well as nonfamilial AD.^{29,30,31} Although the presence of APOE-4 combined with dementia increases the likelihood of an AD diagnosis, the absence of the allele does not confirm that an individual does not have AD. An association between APOE-4 and vascular dementia has not been fully determined.^{32,33} Closed head injuries and Down's syndrome increase the risk of developing AD in later life. Cerebral infarcts and atherosclerosis also may play a role in the expression and severity of AD.¹⁷ Thus, the cause of AD is not a uni-

tary factor, but a combination of factors that interact differently in different people.^{34,35}

Definitive diagnosis of AD is made only at autopsy by pathologic examination of brain tissue, in conjunction with a clinical history of dementia.³⁶ The hallmarks of AD include neurofibrillary tangles, neuritic plaques,^{37,38,39} and neuronal thread protein.⁴⁰ While these are manifest in the brains of normal aged individuals, they are overexpressed in the brains of demented persons. Plaques are external to the neuron and have as a core component beta-amyloid, a protein that is present in abnormal quantities in brains of AD patients.⁴¹ It is not known whether beta-amyloid is a neurotoxin that causes destruction of neurons or if it is a result of neuronal damage caused by some other process. Neurofibrillary tangles, which are intracellular, have as a core component abnormally phosphorylated proteins, especially tau. Cognitive impairment is more highly correlated with the density of neurofibrillary tangles than with the number of plaques. Recent data suggest that persons with AD have a decreased ability to remove excess phosphate from tau protein.⁴² Plaques and tangles are not detectable with presently available neuroimaging techniques.

Neuronal thread proteins are expressed in brain cell lines and accumulate in abnormal amounts in the brains of AD patients. Neuronal thread proteins (NTP) are detectable in cerebrospinal fluid (CSF) early in the course of the disease, and levels in cerebral tissue and CSF increase as the dementia progresses. It is speculated that the increase in NTP expression is associated with chronic neuronal atrophy and synaptic disconnection.⁴⁰ Despite recent research advances, the precise process by which cerebral neurodegeneration occurs remains undetermined.

Caregiver Issues

Caregiving in the context of dementing illness is a demanding and distressing job, for which the majority of caregivers are untrained. Caregiving involves tremendous financial costs and burdens, including lost wages due to decreased work hours or the need to stop working in order to provide fulltime care.⁴³ Frequently, families become socially isolated or social contacts are diminished because of the demands of caring for the AD patient. A sizable proportion of family caregivers experience profound burden, characterized by emotions such as anxiety, guilt, and anger.

The impact of caregiving on physical and psychological health may result in blood pressure changes, altered immune response, depression,

fatigue, and depersonalization.⁸ In addition, pre-existing health problems become exacerbated; caregivers are at increased risk for back strain, loss of sleep, gastrointestinal problems, and headaches.⁴⁴ The burden of care has been described as a "36-hour day" and an "on-going funeral."^{45, 46, 47} Despite the best effort at caring for a demented relative, the only outcome is deterioration and loss. In effect, AD is an "ecologically devastating" disorder, not only for the victim, but for the entire family.

Within the formal health care system, there exists an array of support services, such as adult day care, respite care, and supportive counseling, which could be beneficial to families of AD patients. However, the system is fragmented and varies from state to state.⁴⁴ Services can be very costly, but even when they are subsidized they are underutilized.⁴⁸ Nursing home placement is usually considered as a last resort and occurs when the family can no longer cope with the patient at home.

The Economic Burden of Alzheimer's Disease

The economic burden of dementia to society and families is substantial. It includes the direct costs of medical care and social services, as well as the indirect costs of disease-associated morbidity and mortality, and lost productivity on the part of both patients and family caregivers.⁴⁹ Estimated costs of AD range from \$80 to \$120 billion annually.^{43, 50} While Medicaid pays for nursing home care after the patient's resources have been consumed, family out-of-pocket costs are estimated to average \$450 per month for supplies, medicines, and services. Given the potential duration of the disease and the propensity for families to maintain their care-recipients at home for as long as possible these expenses often lead to financial impoverishment of the family.^{7,9,16,51}

Status of Current Pharmacological Treatments

Despite many research endeavors, there is currently no clinically proven treatment available to AD patients that either reverses or halts the neurological damage of the disease. In the absence of a curative treatment, the goals of therapies for AD have been threefold: (1) to slow the progression of the disease; (2) to prevent further deterioration, once the process has started; and (3) to reduce symptoms.

Two major pharmacologic agents are available for treatment of cognitive deficits. These are the cholinesterase inhibitors, tacrine hydrochloride

(Cognex) and donepezil hydrochloride (Aricept). In 50 percent to 80 percent of patients, cholinergic agents may improve or help maintain cognitive function equivalent to the deterioration observed during the span of 6 to 12 months. However, tacrine may adversely affect the liver, so liver function monitoring is necessary. Donepezil does not cause liver toxicity and may cause less nausea and vomiting.^{3,52} Both tacrine and donepezil have been approved for use with patients in early to moderate stages of the disease.³⁴

Psychoactive drugs commonly used to treat the behavioral symptoms in AD patients are the same classes of drugs used in the general population, including antidepressants, antipsychotics, and antianxiety medication.^{3, 52} Because patients with AD tend to be very sensitive to the central nervous system effects of these drugs, they must be used especially carefully.

Review of Published Guidelines Recognition and Initial Assessment of Alzheimer's Disease and Related Dementia (AHCPR)¹

This Clinical practice guideline was developed principally for primary care physicians to help them recognize and assess the early stages of AD and related dementias. Recognition of early-stage dementia is emphasized because of inappropriate treatments due to misdiagnosis and the opportunity to perform legal, financial, and medical care planning. The following areas are addressed:

- Triggers that should prompt an assessment for early-stage dementia, as distinct from ascribing signs of decline to the aging process.
- The components of an initial assessment, including history and physical examination, mental status tests, and tests of functional performance.
- A flow chart for early recognition and initial assessment, including assessment for depression and delirium (Appendix I).
- Guidelines for the interpretation of test results and appropriate interventions. Clinicians should take into account and assess factors such as physical disability, sensory impairment, and other variables such as age, level of education, and cultural influences when selecting and interpreting test results.
- Algorithm for reassessment and referral.
- The role of neuropsychological testing in cases of mixed test results.
- Collaborative continuity of care for patient and caregivers.

Knowledge of the individual patient is stressed, with emphasis on changes in ability from a baseline observation and the value of having a reliable informant to aid in assessment and clinical judgment. The AHCPR guideline does not address differential diagnosis but does include a list of resources for follow-up evaluation once probable dementia has been identified. There is also an accompanying guide for patients and families and a quick reference guide for clinicians.

Dementia Identification and Assessment: Guidelines for Primary Care Practitioners (Veterans Health Administration and the University Health System Consortium)³

The VHA guidelines provide specific recommendations for procedures at each step of the assessment process, complete with formulated questions, appropriate flow charts, and listing of required laboratory tests. The document also contains instructions for the administration of subtests and scoring for the mini-mental state examination, as well as a listing of other standardized screening tests. A list of drugs in current use, under study, and awaiting Food and Drug Administration approval is also provided. The VHA guidelines recommend referral for neuropsychological testing as an important aid in defining cognitive deficits, differential diagnosis, and treatment planning.

Suggested guidelines for referral to neuropsychological services include:

- Complaints of memory and other cognitive impairments without functional impairment.
- Report of functional change with normal performance on cognitive screening tasks.
- Established diagnosis and need for further information for future clinical decision-making, treatment, and patient and family education and counseling.
- Lack of physician experience with cognitive screening tests and their interpretation, or when a second opinion is desired.
- Techniques regarding behavioral and environmental interventions, and the need for caregiver information and education.

The VHA document also provides an algorithm to guide the differential diagnosis of dementia (Appendix II). An extensive list of resources for caregivers is included.

Practice Guideline for the Treatment of Patients with Alzheimer's Disease and Other Dementias of Late Life (American Psychiatric Association)⁴

The APA guideline is intended to aid psychiatrists in managing demented patients. It assumes a diagnosis of dementia, according to Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)⁵ criteria; a prior evaluation for coexisting mental disorders, such as depression and delirium; and an evaluation for treatable factors that might cause or exacerbate the dementia. Most of the emphasis in the APA document is on management of behavioral symptoms because almost all of the effective treatments available for dementia are in this domain. Additional treatment suggestions are aimed at cognitive and functional deficits, and stress is placed on providing support for caregivers.

The recommendations in the APA guideline are classified into three categories, representing different levels of clinical confidence. The following are the essential components of the document:

- Psychiatric management: ongoing assessment, including symptom monitoring at 4- to 6-month intervals, and prompt intervention; patient and family counseling with regard to driving, environmental management, types of supportive services, and legal and financial planning.
- Behavioral management, including pet and art therapies, environmental interventions, behavior modification, and reality orientation.
- Discussion of treatment with psychoactive and general medications relative to sensitivity and side effects.
- Treatment of cognitive symptoms with cholinesterase inhibitors, and vitamin E and selegiline (Eldepryl).
- Treatment of depression and sleep disorders.

With the exception of the AAN² document, all the guidelines discussed above have extensive lists of resources to help physicians direct families to supportive services. Both documents intended for primary care physicians^{1,3} have excellent graphics that can be easily used in the clinical setting. Only the APA⁴ and the VHA³ documents list current pharmacological agents in use or under investigation. Neither the VHA

nor the AHCPR¹ guides, both intended for primary care physicians, provide direction for continuity of care. In the majority of AD cases, follow-up care is most likely to be provided by primary care practitioners. Because of the volume of research being conducted into AD, it is likely that any guideline or practice parameter will need frequent revision.

Research Directions

Research on AD can be categorized in three broad overlapping areas: causes/risk factors, diagnosis, and treatment/caregiving.³⁷ Two primary approaches are used to resolve the question of AD pathogenesis. The first is biochemical studies designed to explicate the molecular nature and formation of plaques and tangles; the second involves the use of molecular genetic techniques to study mutant genes that may cause AD in families with the autosomal dominant form of the disease.⁴² Research into the basic neurobiology of aging is also vital to the understanding of neurodegenerative processes and in leading to the discovery of a cause, or causes, of AD.

Research also has sought predictors of which cognitively impaired, nondemented patients will ultimately meet criteria for AD.⁵³ Algorithms are being developed to predict the rate of progression of the disease to end stage and length of time to institutionalization.^{34,54} These approaches may facilitate preparation and planning, but also pose ethical quandaries; e.g., how does knowing the likelihood of developing AD affect the quality of life and wellbeing?

Research is continuing on improved methods for diagnosis and symptom management as well as strategies for supporting caregivers and improving care of AD patients.

Among the ethical considerations to be addressed in research protocols are situations in which patient competence precludes informed consent to research or experimental treatments, which might improve functioning or enhance quality of life, but where there are no surrogate decision-makers. In cases where surrogates have been appointed by the courts, the process of informed consent has been prolonged. Some experts have argued that a substitute procedure should be put in place; for example, empowering appropriate medical professionals to make surrogate decisions on behalf of patients may be desirable.⁵⁵

Conclusions

AD and related disorders are a common and costly public health problem. With increasing life expectancy in the United States, AD is expected to afflict approximately 14 million people within the next few decades. Irreversible dementia takes a heavy economic, social, physical, and psychological toll on patients and family members, who provide the majority of care for afflicted individuals. The financial costs to society are enormous. There is currently no cure for AD, only interventions that ameliorate to some extent the profound cognitive losses and difficult behavioral manifestations of the disorder. While community services exist to provide relief for the burden of care, they are underutilized. As traditional gatekeepers for services, physicians can encourage more families to use supportive services. Several authoritative documents on the diagnosis and treatment of AD and related disorders are available. However, there is need for increased and intensive medical education, seminars, and continuing medical education, whereby the information contained in these documents can be widely disseminated.

Recommendations

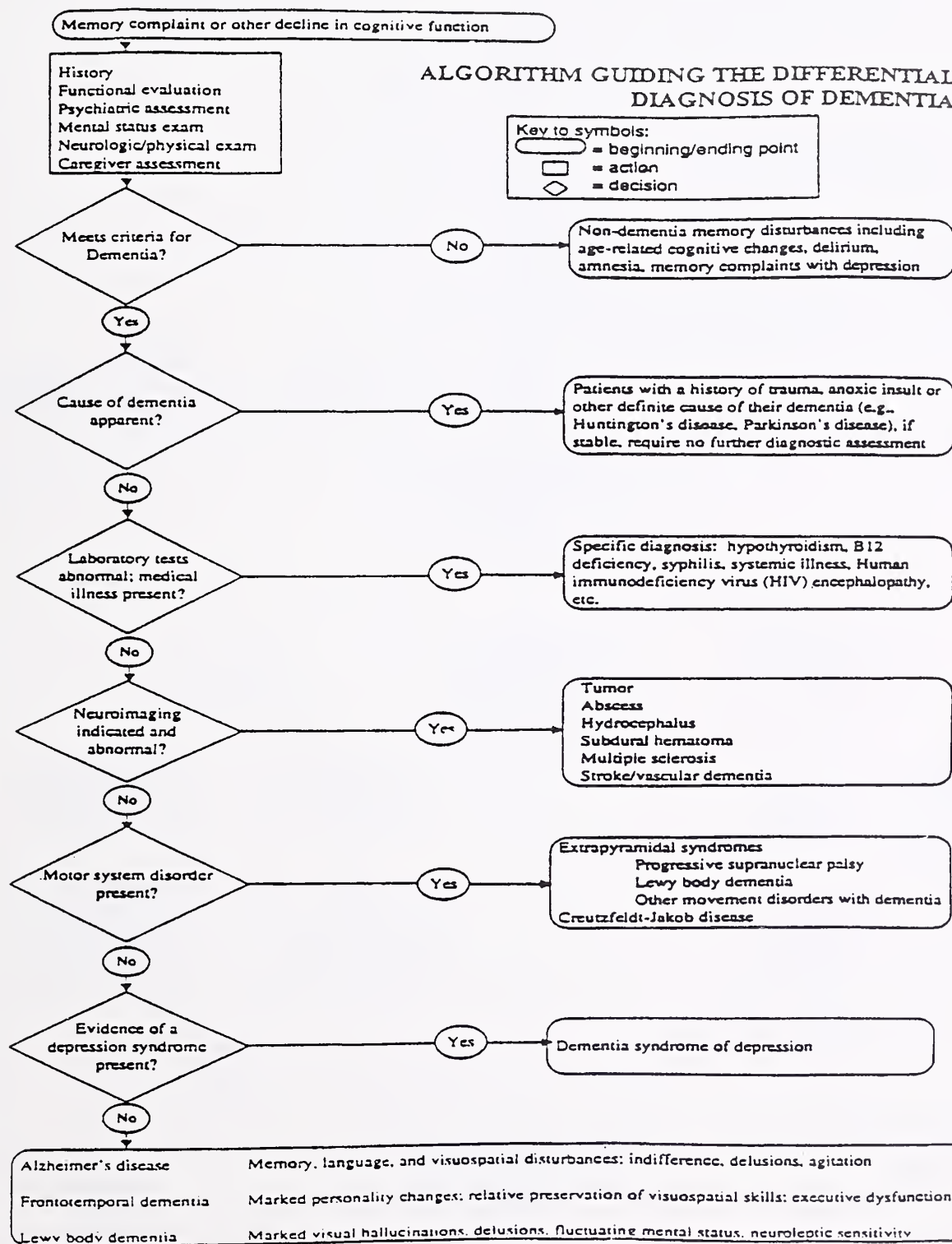
The Council on Scientific Affairs recommends that the following statements be adopted and the remainder of the report be filed.

1. That the AMA encourage physicians to make appropriate use of guidelines for clinical decision-making in the diagnosis and treatment of Alzheimer's disease and other dementias.
2. That the AMA encourage physicians to make available information about community resources to facilitate appropriate and timely referral to supportive caregiver services.
3. That the AMA encourage studies to determine the comparative cost-effectiveness/cost-benefit of assisted in-home care versus nursing home care for patients with Alzheimer's disease and related disorders.
4. That the AMA encourage studies to determine how best to provide stable funding for the long-term care of patients with Alzheimer's disease and other dementing disorders.

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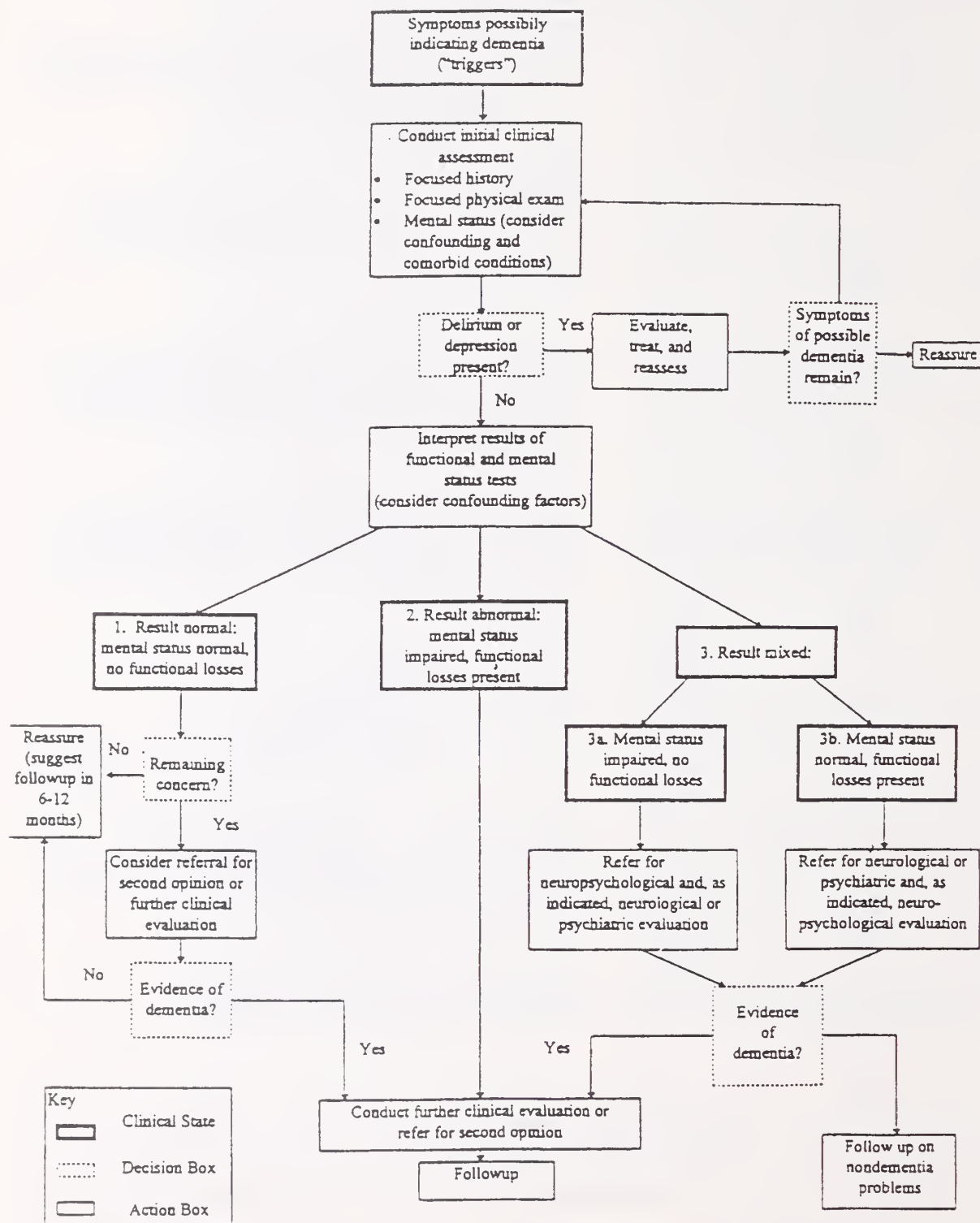
CSA Rep. 6 - I-97



From *Dementia Identification and Assessment: Guidelines for Primary Care Practitioners*
 U.S. Department of Veterans Affairs: Washington, DC, and University HealthSystem Consortium: Oakbrook, IL, 1997

CSA Rep. 6 - I-97

Flow chart for recognition and initial assessment of Alzheimer's disease and related dementias



From *Recognition and Initial Assessment of Alzheimer's Disease and Related Dementias*. U.S. Department of Health and Human Services. Public Health Service Agency for Health Care Policy and Research.

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AMA REPORT



OSMA's representation was strong at the AMA Annual Meeting in Chicago.

Back left to right: Narman Dunitz, MD; Sanku Rao, MD; Jack Beller, MD; Jay A. Gregory, MD; Perry Lambird, MD; Mukesh Parekh, MD; Carl Hook, MD; William Bernhardt, MD.

Front left to right: Bruce Storms, MD; Greg Ratliff, MD; David Harper, MD; W.F. Phelps, MD; William Hall, MD; Mary Anne McCaffree, MD; Gary Strebel, MD (not pictured: Patrick Lester MD).

The Oklahoma State Medical Association's elected delegation to the American Medical Association (AMA) recently attended the AMA Annual Meeting in Chicago, IL, June 12-18, 1998. Representing the OSMA were the following physician delegates:

Delegates

Jay Gregory, MD, Chair; David L. Harper, MD; Norman Dunitz, MD; Gary Strebel, MD; Mary Anne McCaffree, MD; W.F. Phelps, MD; Perry Lambird, MD; William Hall, MD

Alternates

William G. Bernhardt, MD; Bruce Storms, MD; Sanku S. Rao, MD; Greg Ratliff, MD; Carl Hook, MD; Mukesh Parekh, MD; Jack J. Beller, MD; David M. Selby, MD (for Patrick Lester, MD)

Also in attendance from Oklahoma at this meeting were: D. Robert McCaffree, MD, Oklahoma City, President, American College of Chest Physicians and Chair-AMA Reference Committee D; George Kamp, MD, Tulsa, delegate from the American College of Radiology; and Tisha Dowe Westmoreland, MD, Lawton. In addition, Drs. Dunitz and Hall served on Reference Committees A and F respectively.

The OSMA Delegation met on a daily basis (Sunday through Thursday) with delegates from the states of Kansas, Missouri and Arkansas, known collectively as the "Heart of America" (HOA) Caucus. The HOA Caucus serves to facilitate the interests of states which have regional similarities and share common borders. The HOA Caucus reviews and discusses policy matters before the AMA House of Delegates and interview candidates seeking election to the AMA Board on Councils.

The following are several highlights from this meeting:

Nancy W. Dickey, MD, a board-certified family physician from College Station, Texas, became the 153rd (and first woman) president of the American Medical Association on June 17, 1998. One of the most influential voices in American medicine today, Dr. Dickey will dedicate her year-long presidency to several key issues, among them: universal access to health care, new opportunities for health system reform — particularly in the private sector — and a recommitment by physicians everywhere to the highest level of professionalism. Dr. Dickey, who was named President-Elect of the AMA in June 1997, has been a member of the AMA Board of Trustees since 1989. She served as Board Chair

from November 1995 to June 1997, and as Vice Chair from 1994-1995.

In addition to her service at the AMA, Dr. Dickey is the program director for the Brazos Valley Family Practice Program associated with the Texas A&M University in College Station, Texas. She is also a Fellow of the American Academy of Family Physicians and has served as Vice President of the Texas Medical Association (TMA) and delegate to TMA from Fort Bend County Medical Association from 1984 to 1989. Born in Watertown, South Dakota, Dr. Dickey received her M.D. degree in 1976 from the University of Texas Medical School at Houston. She completed her residency in family medicine at University of Texas affiliated Memorial Hospital System in 1979.

Thomas R. Reardon, MD, a general practitioner from Boring, OR, was elected President Elect in a contested race. Dr. Reardon is the Immediate Past Chair of the AMA Board of Trustees.

Jay A. Gregory, MD, a general surgeon from Muskogee, OK and Chair of the OSMA Delegation to the AMA, announced his candidacy for election to the AMA Board of Trustees in 1999. Dr. Gregory currently serves as chair of the Federation Coordination Team (FCT), a national organization dedicated to enhancing the value of membership in organized medicine.

The following specific actions were taken by the AMA House of Delegates on the sixteen Resolutions introduced by the OSMA Delegation:

OSMA Resolutions

1. Resolution 7 - Physicians in Congress

AMA Action: Adopted as amended

Resolved, That the American Medical Association go on record as stating that the practice of medicine by a seated member of Congress or other elected official does not by definition constitute a conflict of interest between said physician and his or her patients or any third party payors.

2. Resolution 132 - Fixed Reimbursement to Physicians for Laboratory Services

AMA Action: Adopted

Resolved, That the AMA evaluate the appropriateness of supporting a fixed payment to the respective physicians for interpretation and administration services for procedures such as laboratory tests, EKGs, pulmonary function tests, and x-rays.

3. Resolution 232 - User Fees

AMA Action: Adopted as amended substitute resolution 201 in lieu of resolutions 201, 207, 231, 232, 238, 239, 260 & 261.

Resolved, That our American Medical Association strongly oppose any attempt on the part of the federal or state governments or other entities to impose new "user fees," "provider taxes," "access fees," or "bed taxes" on physicians and other health care providers to subsidize or fund any health care program; and be it further

Resolved, That our American Medical Association strongly oppose any directive from the Health Care Financing Administration to slow down the rate of payment of Medicare claims or reduce administrative services to patients, physicians, and other health care providers; and be it further

Resolved, That our American Medical Association strongly urge Congress to appropriate sufficient funds to enable the Health Care Financing Administration and its carriers to carry out their stat-

utorily required functions; and be it further

Resolved, That our American Medical Association study the ethical and legal implications of paying a fee in order to receive patient referrals.

4. Resolution 233 - Legislation to abolish ERISA protection in managed care plans

AMA Action: Adopted as amended substitute resolution 202.

Resolved, That it be AMA policy that utilization review decisions to deny payment for medically necessary care constitute the practice of medicine; and be it further

Resolved, That our AMA seek to include in federal and state patient protection legislation a provision subjecting medical directors of managed care organizations to state medical licensing requirements, state medical board review, and disciplinary actions; and be it further

Resolved, That our AMA reaffirm Policies 165.875, 165.883, and 165.898, and bit it further

Resolved, That our AMA convey to the Physician Insurers Association of America (PIAA) and each member organization of PIAA our dismay that the PIAA has chosen to oppose legislation allowing ERISA plans to be held responsible for their actions and urge it to reconsider its position.

5. Resolution 234 - Collective Bargaining for Health Care Professionals

AMA Action: Reaffirmed existing AMA Policy in lieu of resolution 234

Resolved, That the American Medical Association support the "Health-Care Coalition Act" proposed by Representative Tom Campbell, of California, which states: "any group of healthcare professionals, negotiating with a Health Maintenance Organization, insurance company, or other payor, shall, in connection with such negotiations, be entitled to the same treatment under the antitrust laws accorded to members of a bargaining unit recognized under the National Labor Relations Act."

6. Resolution 235 - Federal Tax Code Changes Regarding Health Insurance

AMA Action: Reaffirmed existing AMA policy in lieu of Resolution 235.

Resolved, That the American Medical Association work with the federal government to change the current federal tax code to allow individuals who purchase their own health insurance the ability to deduct the cost of all premiums from their gross income before arriving at their adjusted gross income.

7. Resolution 236 - AMA Task Force

AMA Action: Not Adopted

Resolved, that the American Medical Association develop a strike force which will establish strategies and work onsite in conjunction with State and Specialty Societies to respond to health care issues in crisis.

Fiscal Note: \$132,500

8. Resolution 424 - Needle Exchange Programs and HIV/Aids

AMA Action: Not Adopted

Resolved, That the available scientific studies on needle exchange programs do not provide conclusive evidence to support the claims that such programs reduce HIV infections and do not encourage illegal drug use; and be it further

Resolved, That the AMA support comprehensive drug treatment as the preferred long-term policy for both drug-control and HIV/AIDS prevention; and be it further

Resolved, That the AMA Board of Trustees study all current scientific data available relating to the efficacy of needle exchange programs and report back to the House Delegates at the 1998 Interim Meeting.

9. Resolution 616 - Composition of AMA Appointed Advisory Bodies

AMA Action: Not Adopted

Resolved, That the American Medical Association adopt as policy that any policy-making body whose decisions impact directly upon the community-based practicing physician, which is appointed by the American Medical Association Board of Trustees, American Medical Association House of Del-

egates, or the Officers of the American Medical Association shall be comprised of individuals, at least 50 percent of whom shall be active, practicing, community-based physicians.

10. Resolution 617 - AMA Protocol

AMA Action: Not Adopted

Resolved, That the American Medical Association adopt as policy an open line of communication as to the chain of command and lines of responsibilities throughout the entire organization which can be published, widely distributed, and understood by all interested parties.

11. Resolution 618 - AMA Public Relations Campaign

AMA Action: Referred to Board of Trustees

Resolved, That the American Medical Association implement a public relations campaign designed to improve the public's perception and overall image of Doctors of Medicine and Osteopathy and reaffirm current policy H-445.992.

12. Resolution 719 - Definition of "Medical Necessity"

AMA Action: Referred to Board of Trustees

Resolved, That the AMA take the position that screening, which is a term referring solely to examinations of asymptomatic, apparently health individuals with no signs or symptoms of disease, typically undertaken to provide the individual examined with reassurance of his/her good health, shall not be considered the examination for asymptomatic individual with signs or symptoms of disease for whom a process of diagnosis or treatment is being undertaken by his/her physician; and be it further

Resolved, That the term "medical necessity," or "medically necessary," when used in reference to the evaluation and/or treatment of a patient by a medical doctor or doctor of osteopathy, shall mean any evaluation provided by or at the direction of an M.D. or D.O., or treatment, which in the professional opinion of the M.D. or D.O., in consultation with and concurrence of the patient or his/her legal representative, will provide func-

tional, psychological, or health benefits to the patient.

13. Resolution 817 - AMAP

AMA Action: Adopted as Amended Substitute Resolution 817

Resolved, That the AMA adopt as policy that "All reasonable efforts will be made to implement AMAP with the active involvement of the relevant state medical societies. In a state where the AMA and the state medical society have not yet developed an agreement to implement AMAP:

AMAP will not actively solicit individual physicians to apply for accreditation without written or electronic agreement from the state medical society;

AMAP will not actively solicit potential local customers for AMAP-generated information without written or electronic agreement from state medical society;

AMAP may respond to physician requests for AMAP accreditation and shall communicate in writing or electronically that information to the relevant state medical society within 30 days of the request; and

AMAP may service contracts with multi-state clients for AMAP-generated information when contracted physicians are located in that state, and shall communicate in writing or electronically that information to the relevant state medical society.

14. Resolution 828 - JCAHO Sentinel Event Policy

AMA Action: Adopted as Amended Substitute Resolution 828 in Lieu of Resolutions 828 and 841.

Resolved, That the American Medical Association express its concerns with opposition to the new JCAHO Sentinel Event Policy regarding the potential for the damaging release or discovery of confidential information, the cost of the JCAHO site visit related to sentinel events, and urge the JCAHO to suspend implementation of this new policy until these concerns can be adequately addressed.

15. Resolution 835 - E&M Guidelines

AMA Action: Adopted as Amended Substitute Resolution 801 in Lieu of

Board of Trustees Report 43 and Resolutions 801, 803, 807, 808, 813, 818, 824, 830, 832, 834, 835, 840, 845, 846, 847, 849, 853, 855, 856, AND 865.

Resolved, that the American Medical Association adopt the following principles to guide the Association's efforts in opposing inappropriate penalties or prosecution of physicians with respect to alleged fraud and abuse:

1. The AMA stand firmly committed to eradicate true fraud and abuse from within the Medicare system.

Furthermore, the AMA calls upon the DOJ, OIG, and HCFA to establish truly effective working relationships where the AMA can effectively assist in identifying, policing, and deterring true fraud and abuse.

2. Physicians must be protected from allegations of fraud and abuse and criminal and civil penalties and/or sanctions due to differences in interpretation and or inadvertent errors in coding of the E&M documentation guidelines by public or private payers or law enforcement agencies;
3. The burden of proof for proving fraud and abuse should rest with the government at all times;
4. Congressional action should be sought to enact a "knowing and willful" standard in the law for civil fraud and abuse penalties as it already applies to criminal fraud and abuse penalties with regard to coding and billing errors and insufficient documentation;
5. Physicians must be accorded the same due process protections under the Medicare audit system or Department of Justice investigations, that are afforded all US citizens; and be it further

Resolved, that with respect to prepayment and postpayment audits by the Medicare Program, the following principles guide AMA advocacy efforts:

- (1) The confidential medical record should be preserved as an instrument of clinical care, with strong confidentiality protections and we

oppose its use as an accounting document;

- (2) HCFA should discontinue random prepayment audits of E&M services;
- (3) In lieu of prepayment audits, HCFA should use focused medical review of outliers based on reviews of patterns of services, using an independent medical peer review process, where physicians practicing in the same specialty, review their peers;

No financial or legal penalties should be assessed based on one level of disagreement in E&M code assignment;

HCFA must stop the practice of requiring physicians to repay alleged Medicare overpayments before an actual appeal is rejected or a final administrative decision or a court order is rendered. Legislative relief will be sought if advocacy with HCFA is not successful in this regard; and be it further

Resolved, That the American Medical Association continue to vigorously pursue, in all appropriate manners, the following activities and principles with respect to the development and implementation of documentation guidelines for evaluation and management services:

AMA in cooperation with the Federation, continue to work through the CPT Editorial Panel and with HCFA to develop simplified E&M Guidelines that are clinically relevant, realistic and practical and do not require either excessive physician time or documentation in excess of that necessary for good patient care;

Physicians' medical record documentation should be sufficient for a peer physician to determine whether services have been accurately reported and that payments were made for medically necessary and appropriate services;

Consistency with simplified E&M documentation guidelines should provide a "safe harbor" for physicians whose E&M services are selected for review, but such review should involve peer physicians who are able to consider all pertinent information that would help determine that the level of service reported was correct;

Continue to advocate for continuing the current "grace period" for implemen-

tation of new documentation guidelines until needed changes are made in the content of the 1997 guidelines. Any audits carried out during the grace period should conform with the principles contained in the second Resolved;

Support for adequate testing of revised guidelines through pilot tests that are scientifically valid and include a representative sample of all types of practice setting and geographic regions. The pilot studies should include issues such as cost of compliance, patient and physician satisfaction, effect of a peer review model, whether patient care is improved and whether medical care costs increased or decreased. Organized medicine should be involved in the design, implementation and evaluation of the pilot programs and that physicians participating in the pilot be granted immunity from Medicare sanctions and penalties;

Urge HCFA to adequately fund educational efforts for physicians and their office staff about documentation guidelines, once agreement on their content is reached;

Continue efforts to make information on the revised guidelines available to members, relying on the AMA Website as well as printed publications such as JAMA and AMA News;

Work with national medical specialty societies and state medical associations to develop documentation tools to assist in implementation of the guidelines, making use of the "members only" portion of the AMA Website for distribution of such tools as a member service;

That AMA oppose any documentation system that requires quantitative formulas or assigns numeric values to elements in the medical record to qualify as clinically appropriate medical record-keeping.

16. Resolution 836 - Medicaid Physician Reimbursement

AMA Action: Coupled with Resolution 805 and Referred to Board of Trustees

Resolved, That the American Medical Association initiate a Congressional effort that would require all state Medicaid programs to use RBRVS for physician reimbursement.

Other AMA Actions/Highlights

At this meeting, the AMA formally introduced its new Executive Vice President, E. Ratcliffe ("Andy") Anderson, Jr., M.D., who addressed the House of Delegates and briefly spoke to the OSMA Delegation at the Heart of America Caucus Meeting on Wednesday, June 17. Dr. Anderson is a dermatologist, former U.S. Air Force Surgeon General and Immediate Past CEO of Truman Health Systems in Kansas City, MO.

Other Highlights...

The AMA referred to the Board a controversial report from CEJA (Council on Ethical and Judicial Affairs) addressing the sale of health-related non-prescription goods from physicians' offices.

The AMA adopted resolution calling for the AMA conduct a thorough study of the Year 2000 computer problem and how this may affect the delivery of health care services for physicians and patients.

The AMA adopted a resolution calling for the AMA to initiate a campaign to educate the general public and legislators about the differences between physicians and non-physician providers regarding their unique training, experience, knowledge, ability, and overall expertise.

The AMA adopted a substitute resolution calling for the AMA, in conjunction with appropriate specialty organizations, to strongly urge the FDA to conduct a survey of practicing physicians to assess the effects of direct-to-consumer advertising of prescription drugs on physicians' practices and patient care.

The AMA adopted the Report of the Ad Hoc Committee to Study Sunbeam, which included seven recommendations to ensure that situations that surrounded the Sunbeam matter do not occur again. Mary Anne McCaffree, MD, OSMA President, was a member of the Ad Hoc Committee.

The AMA adopted as amended a resolution calling for the AMA to restore funding for "The Extinguisher" anti-tobacco program.

The AMA adopted a comprehensive Report of the Board of Trustees which includes recommendations of a special task force to make implementation of AMA policy in the private sector more



Jay A. Gregory, MD, Chair of OSMA's AMA Delegation, meets with the delegates in Chicago. Kathy Musson, associate director of OSMA, and Delegate Perry A. Lambird, MD, are in attendance.

effective. The four primary areas of focus for the task force are: 1) Employed Physicians and Collective Bargaining; 2) Antitrust Reform for Collective Negotiations by Self-Employed Physicians—the Campbell Bill; 3) Advocacy Regarding Private Sector Payors; and 4) Resolving Potential Conflicts in Interest Between Solo and Small Group Physicians and Physicians in Large Groups and Networks.

New Business

As previously mentioned in this Report, I have formally announced my candidacy for a seat on the AMA Board of Trustees. The election will be held in June, 1999. Competition will be fierce — as of this date I know that three Board incumbents are running for reselection (Drs. Hill, Lewers and Palmisano) and at least five other physicians have announced their interest in serving on the AMA Board; that means at least nine candidates for what will likely amount to five open seats.

I feel confident that my prospects for election are promising. Serving as Chair of the Federation Coordination Team (FCT) for the past two years, and most recently as Chair of the HOA Caucus, have offered opportunities for prominent visibility

before the House of Delegates. However, nothing will be possible without the strong support of the OSMA and the OSMA Delegation to the AMA. Brian Foy and I will soon map out a campaign strategy for the coming year and I plan to start early. At the October OSMA Board Meeting, I will ask the Board to consider my plans for 1999 and any specific recommendations regarding budgetary matters.

Recommendations

That the OSMA Board of Trustees authorize the transfer of \$15,000.00 to the AMA Candidates Campaign Fund representing \$5,000.00 a year contributions for the years 1996, 1997, and 1998.

Next Meeting

The next meeting of the American Medical Association's House of Delegates will be December 6-9, 1998 at the Hilton Hawaiian Village, Honolulu, Hawaii. The OSMA Delegation will likely meet prior to this meeting to further discuss operational issues as well as campaign strategy.

Respectfully submitted,

Jay A. Gregory, MD
Chair

AMA HOUSE APPROVES SUNBEAM REPORT

At its June meeting, the AMA House voted unanimously — or at least without audible dissent — to approve the AMA's ad hoc committee report on the Sunbeam deal.

To help prevent a similar problem from occurring in the future, the ad hoc committee outlined several recommendations for organizational changes, recommending that:

- The AMA "rededicate to professionalism."
- The house take part in developing the AMA vision and concentrate AMA activities on programs consistent with the Association's core objectives.
- The Association reaffirm the "fiduciary responsibility" of the board and the policy-setting role of the house.
- The roles and responsibilities of the trustees, chair and president be "clearly defined and delineated."
- The house clearly understand the operating procedures of the board.

The committee also recommended that a second task force, which is examining issues related to the AMA's structure, governance and operations, take into account its recommendations, including:

- Development of a two-track system in which the roles of the AMA president and board chair are clearly separated.
- Assignment of the bulk of advocacy and ambassadorial duties to persons other than trustees, so board members are free to focus on the board's fiduciary responsibility.
- Formal training of the board chair, especially in communicating and coordinating board directives with the executive vice president.

AMA SUPPORTS INDIVIDUALLY-HELD COVERAGE

More insurance choice is needed in today's health care environment. Physician leaders say that the system promises to revitalize the patient-physician relationship while affording Americans more individual choice and control over their mode of coverage.

The proposed program puts the patient in the driver's seat with the physician riding shotgun. The milestone proposal (contained in a Council on Medical Services report) also puts an end to AMA's endorsement of an employer mandate for providing health coverage to employees.

AMA's new policy to retool health coverage in favor of an individually based system:

- Advocates a system based on individually purchased and owned health coverage.
- Endorses the concept that employers provide a defined contribution for employees' health coverage.
- Supports legislation that would provide tax benefits for employers offering a defined contribution and for employer and employee contributions to individually based insurance.
- Backs individual tax credit treatment of health insurance coverage.

Source: AMA Council on Medical Services

NO AMA DUES INCREASE!

The AMA Board recommended, and the House of Delegates concurred at its June meeting, that there will be no AMA dues increase for 1999. The news is even better for Oklahoma physicians. Members of unified societies, except for residents and medical students, will continue to receive a 10 percent discount on the standard AMA dues rate.



Oklahoma City Surgeon Named Head Physician for the 2000 Summer Olympic Games

A lifetime love for athletic competition has vaulted Brock Schnebel, MD, into the head physician slot for the U. S. team in the 2000 Summer Olympic Games in Sydney, Australia. Schnebel, an orthopedic surgeon in Oklahoma City, was recently selected by the U. S. Olympic Committee's sports medicine committee.

Schnebel was also named the head physician at the Goodwill Games set to begin later this month in New York.

Those games will include 15 of the most popular international sports, such as gymnastics and track and field.

Schnebel has more than a decade of experience caring for elite athletes at a variety of high-level competitions, including the 1996 Olympics in Atlanta, the Junior World Championship Games in Greece and the Pan American Games in Argentina, both in 1995, the Goodwill Games in Russia in 1994, the World University Games in New York in 1993, and the U. S. Olympic Festival in Los Angeles in 1991.

National Travel Survey Reveals that an Ounce of Prevention is Worth Much More than a Pound of Cure

If you've ever meticulously planned for that perfect vacation only to have it ruined by a nasty bout of sunburn, or worse, motion sickness, you're not alone. According to "Rx for Travel Health," a national travel survey of 1,000 men and women, 63 percent of travelers reported that they or a travel companion have gotten sick while on vacation.

The most common illnesses that plagued those surveyed included sunburn (62 percent), motion or seasickness (34 percent), and allergies (34 percent). Other less common illnesses encountered during vacation included "Montezuma's Revenge" (23 percent), and food poisoning (12 percent).

The survey discovered that almost nine out of 10 travelers who got sick (89 percent) did not consult a doctor before leaving. Women were slightly more inclined than men to contact their doctors (12 percent versus 5 percent). Respondents under 50 years of age who got sick on vacation were less likely than those over 50 years to say they usually consult their doctor before going on vacation (7 percent versus 19 percent).

"Rx for Travel Health" was conducted March 6-8, 1998. A total of 1,023 telephone interviews took place among a nationally representative sample of adults 18 years of age and older (492 males and 531 females).

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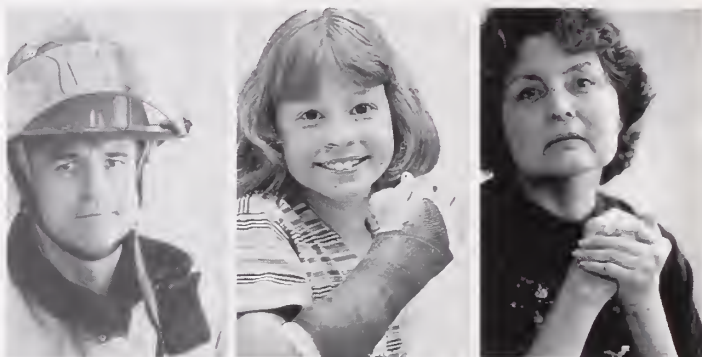
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DEATHS

Charles N. Talley, MD 1897 - 1998

Charles N. Talley, MD, was born July 19, 1897 and died June 14, 1998. He received his medical degree from the University of Oklahoma in 1923 and retired from his general practice in Marlow. He became a life member of the OSMA in 1977.

Charles M. Cameron, Jr, MD 1923 - 1998

Charles M. Cameron, Jr., MD, was born Dec. 20, 1923 and died June 22, 1998. Cameron was a 1948 graduate of the Vanderbilt University School of Medicine and received a master in public health degree from the University of North Carolina. He authored more than 100 scientific articles and was an avid photographer. He most recently was Dean Emeritus of the University of Oklahoma College of Public Health. He became a member of the OSMA in 1969.

IN MEMORIAM

1997

Gerald Matthew Steelman, MD	August 29
George Arthur Martin, MD	September 10
John Douglas Hesson, MD	October 18
Dorothy Rose Danna, MD	November 7
Marcus Lafayette Cox, MD	November 11
Curtis Bert Cunningham, MD	November 16
David Eugene Livingston, MD	November 21
Fred Thomas Fox, MD	December 6
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Bryon Fremont Smith, MD	February 21
Emil Maurice Childers, MD	February 22
Burton Bonnard McDougal, MD	February 23
Robert T. "Tom" Cronk, MD	April 15
Jack Paul Enos, MD	April 19
Paul Arthur Barnett, MD	April 28
Allen B. Eddington, MD	May 20
Jerry L. Puls, MD	June 5
Charles N. Talley, MD	June 14
Thomas C. Points, MD, PhD	June 15
Charles M. Cameron, Jr., MD	June 22
Philip G. Tullius, MD	July 4

Philip G. Tullius, MD 1918 - 1998

Oklahoma City anesthesiologist Philip G. Tullius was born Jan. 27, 1918, and died July 4, 1998. He received his medical degree in 1942 from the University of Oklahoma. After being a member of the OSMA for nearly 40 years, he was selected for life membership in 1983.

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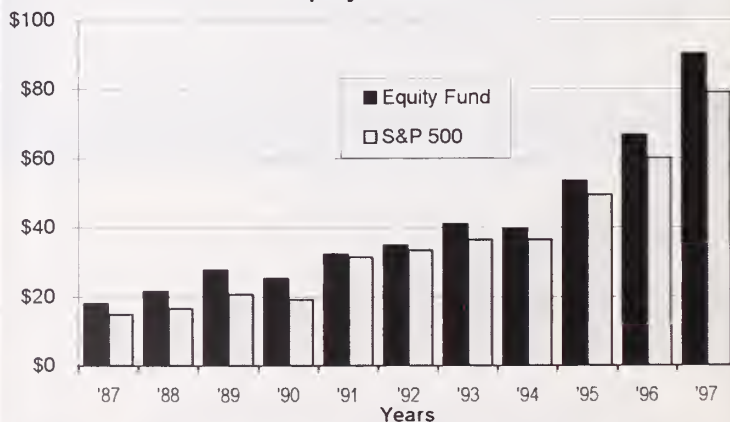
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THE LAST WORD

Physician Captured Oklahoma Scenery in Photos

These scenic Oklahoma photos pay tribute to Charles M. Cameron, MD, who was Dean Emeritus of the University of Oklahoma College of Public Health. Prior to his death on June 22, 1998, Dr. Cameron was an avid photographer. He served as president of the Metro Camera Club of Oklahoma City and is one of the few members of this organization to achieve high recognition for his photographic images in black and white, color print, and color slides.

His pictures have been awarded "Best of the Year" status for four of the past six years. In 1993, he was elected to the Advisory Board of the International Photography Hall of Fame and Museum and in 1995 was named to the National Board of that organization. Dr. Cameron was also a collector of cameras and photographic equipment and had more than 2,000 cameras in his personal collection.

Other physicians with an interest in photography are invited to submit photos to the *JOURNAL* for publication. The Editorial Board prefers photos of Oklahoma scenery, such as these, for cover photos.



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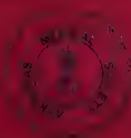


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"Distributive Ethics"

When we consider the status of medical insurance in today's world, we soon become aware that all is not well in this part of the economic life of our society. Instead of a steamship to the Utopia of universal access to medical care, medical insurance is a leaky lifeboat requiring constant repair, and too small for the passenger load.

In every session of the Oklahoma legislature, bills are introduced to mandate special medical insurance coverages, or to require inclusion of certain population groups, or to prohibit especial insurance limitations such as genetic or disease underwriting. Presently, both Congress and many state legislatures give a lot of attention to micro managing medical insurance. These many legislative initiatives certify to the failure of medical insurance in its basic mission to society, and also certifies, indirectly, the great value of medical care to the people of our society.

Historically, medical insurance was launched more than a century ago by the "Iron Chancellor" Bismark of Prussia to save a tottering state socialism political regime, and the plan was intrinsically flawed. Statistics and economics were both ignored to achieve a political goal, and a defective insurance concept was then institutionalized. Other governments, noting the political effects of Bismark's ploy, initiated medical insurance programs of a similar, flawed nature.

At that time, the spread of medical insurance through the governments of the world coincided with the marked increase in the value of medical care to the people of the world. While primitive medical care was not sufficiently important to interest the politicians in its provision, modern medical care is so valuable that all the people demand it, and the politicians want the credit for providing it.

So we have come to a time in the world's economic evolution when medical care is as necessary as food and water, and some government regulated medical insurance scheme is thought necessary to fund it. Tax policies of

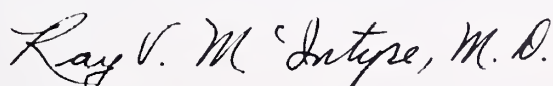
major governments are determined by medical costs, and most workers' wages and benefits are keyed on the tax effects of medical insurance. Unions, corporations, and governments now struggle to control the medical insurance of their constituents.

Unfortunately, the statist and socialistic bias in these "distributive ethics" programs have frustrated the peoples' perennial search for economic security and independence. The peoples' natural desire for good medical care is converted to a pathological dependence on insurance and government programs.

The ideal for society would be for medical care to be purchasable by every citizen from his own funds, just as are the purchases of any other commodity the citizen may choose to buy such as food, shelter, clothing, autos, or even luxury items. People have a variety of ambitions and tastes in the selection of these items, and so it should be with medical care, that the individual should buy with funds under personal control the style and quality of medical care that suits the individual taste.

In June 1998, the American Medical Association House of Delegates endorsed a policy change to support a system of health coverage based on individual policies, with the implication that a phase out of employer-selected insurance policies would ensue. This is a small and incomplete step in the right direction, in our opinion.

The "right direction," in this instance, includes a philosophical abandonment of state-sponsored medical insurance, followed by the tax policy revisions needed to return the peoples' money to their own control so that they can voluntarily buy those things, including medical care, that they choose to select.



Ray V. McIntyre, MD,
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Our First Step is Awareness

A recent visit with Dr. Randy Ferris, regional Health Care Financing Administration officer, highlighted the importance of the issue of the Year 2000 (Y2K), commonly referred to as the "millennium bug." Dr. Ferris stated that "the drop dead date" for compliance with the Y2K for Medicare reimbursement for electronically-processed claims is Dec. 31, 1998. This directive comes from the National HCFA offices. The current rate of electronically-processed claims in Oklahoma is more than 80 percent.



The Y2K issue arises from the tendency of computer programmers to use two digits to represent years, e.g., 98 means 1998. This "conscious coding compromise" of using two digits instead of four has resulted in significant ubiquitous problems embedded in hardware and software. Most computer systems are affected, including five percent of total software and 90 percent of computer applications. It is recommended that every desktop, laptop and server be examined for Y2K compliance. There are several web sites that contain helpful information (www.year2000.com and www.ama-assn.org).

Now looking at another important issue, domestic violence. In this month's *JOURNAL* is a feature on violence in family life. Readers are invited to review this information and gain awareness of this formidable force in our patients' lives. Sixteen American children and adolescents die in gun-related homicides, suicides and accidents daily.

The risk of domestic homicide is three times greater, and suicide five times greater, in homes that have a gun, compared to homes that do not. Families that have guns are urged to keep them unloaded and locked, away from children. Ammunition should be kept in a separate locked location.

Violent acts depicted in the media are also pervasive. The average youth will have viewed 200,000 acts of violence on television by the age of 18. Prime time television violence includes three to five violent acts per hour. A casual connection between media violence and aggressive behavior in some children has been documented in 1000 studies. Young children cannot uniformly discriminate between "real life" and "fantasy/entertainment."

Parents can limit the amount of TV their children watch, monitor the types of programs that they see and locate the TV in a family room instead of placing it in the child's room. Children who respond to situations with anger and fear can be taught to express these feelings without using violence or weapons by talking about their feelings instead of acting them out. Parents frequently turn to the physician for guidance with these issues. Your help in providing information about gun safety, media violence and handling fear and anger will benefit the family and community. Your assistance is requested.

A handwritten signature in dark ink that reads "Mary Anne McCaffree". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Mary Anne McCaffree, MD
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Global Primary Blast Injury: A Rat Model

Randy J. Irwin, MD; Megan R. Lerner; John F. Bealer, MD; Stan A. Lightfoot, MD; Daniel J. Brackett; David W. Tuggle, MD

Blast wave injury from bombs cause a unique but poorly understood spectrum of injuries. Previous blast wave models involved high energy explosives detonated in an open field without the sophisticated monitoring of laboratory equipment. We characterized a rodent model that produces a global blast injury in a safe laboratory environment. Male rats, prospectively randomized to four groups of ten, were anesthetized and subjected to a blast at 2.0 cm, 2.5 cm, or 3.5 cm from the blast nozzle. The control group received no blast. Intensity of the blast (80-120 psi peak pressure, 1-2 msec duration) was controlled by varying the distance of the blast wave generator to the rat. The rats were monitored for three hours following the blast and then euthanized. Bradycardia was an immediate but transient response to blast injury. Mean arterial pressure was bimodal with severe hypotension occurring immediately after the blast and, again, two to three hours later. The characteristic injuries from a blast wave, such as pulmonary hemorrhage with increased lung weight, intestinal serosal hemorrhage, and hemoperitoneum, were found in the rats subjected to the blast pressure wave. In conclusion, our rodent model accurately reproduces the clinical spectrum of injuries seen in blast victims and will provide a powerful tool for studying the pathophysiology and potential treatments of bomb blast victims.

Introduction

The increased use of explosives by terrorists has made the management of blast injured victims a problem for civilian, as well as military physicians. An explosive is any substance or device

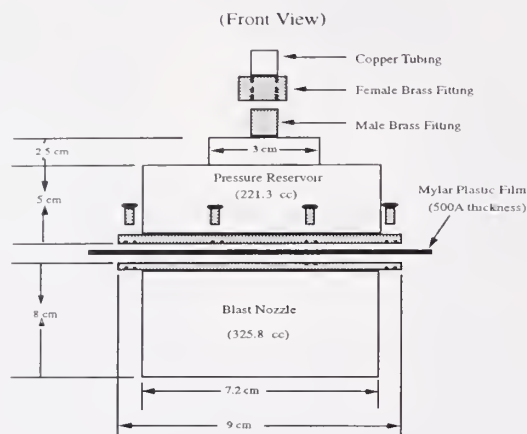
capable of a sudden expansion of a gas, which upon release of its potential energy creates a pressure wave.¹ Based on the mechanism of energy release, explosives are categorized as chemical, mechanical, or atomic. Chemical explosives decompose into a gas upon detonation, and their destructive power is partially dependent upon the rate of decomposition. Low energy chemical explosives such as black powder (potassium nitrate, sulfur, charcoal) burn or deflagrate slowly developing low pressures; whereas high energy chemical explosives such as trinitrotoluene (TNT) detonate at high speeds developing high pressures.¹ Mechanical explosives usually involve a device that confines a compressed gas with a diaphragm. When the pressure of the compressed gas exceeds the burst strength of the diaphragm, an explosion is created. Atomic explosives derive their energy from the disintegration of an atom's nucleus.

The pressure generated from an explosion is transmitted into the surrounding environment as a radially propagating pressure wave that can attain supersonic speeds.² When measured, a blast pressure wave has a short positive phase that almost instantaneously rises to its peak pressure, decays over time (Friedlander waves), and ends with a negative pressure or subatmospheric vacuum.^{3,4} The area under the curve, the impulse, is proportional to its biologic effect.⁴

Studying the physiologic effects of a blast wave in a clinically useful and scientific model has been difficult because previous models typically used high energy explosives such as trinitrotoluene detonated in an open field or in shock tubes. These blast models are dangerous and lack reproducibility, close observation, and the use of sensitive laboratory equipment. The objective of this study was to develop a reproducible mechanical explosive that simulates

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A. Blast Wave Generator



B. Blast Wave Apparatus

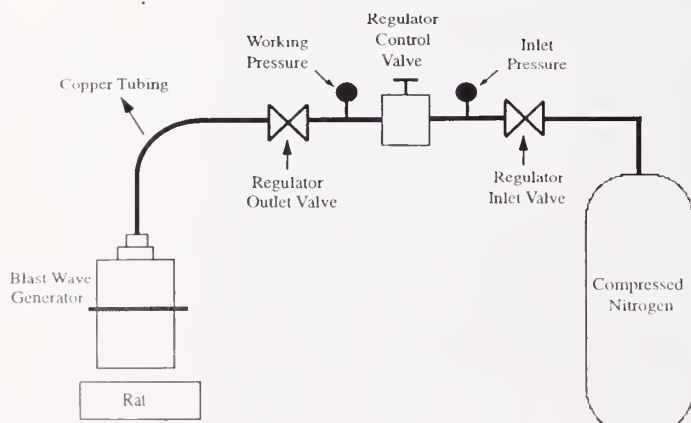


Figure 1: Schematic diagram of the A. Blast wave generator and B. Blast wave generator apparatus.

blast pressure waves from high energy explosives and produces the types of injuries commonly seen in blast injured victims.

Materials and Methods

Blast wave generator:

A blast wave generator was designed and constructed to deliver a global blast pressure wave in a safe laboratory setting. Our blast wave generator (Fig. 1A) consists of three parts: a pressure reservoir, a blast nozzle, and a 500 angstrom Mylar® polyester film (DuPont Films, Wilmington, DE) that separates the two compartments. Compressed nitrogen from a storage tank is slowly delivered by copper tubing under the control of a regulator to charge the pressure reservoir (Fig. 1B). When the pressure in the reservoir exceeds the burst strength of the Mylar® diaphragm, a blast pressure wave is discharged toward the rat by the blast nozzle. All blast waves in this study were measured using an Omega PX603 high frequency air pressure transducer (Omega Engineering Co., Stamford, CT) and analyzed on a Phillips PM 3394 digital oscilloscope (Fluke Electronics Co., Everett, WA) for wave form, peak pressure, and duration.

Animal studies:

This study was approved by the Animal Care and Use Committee at the University of Oklahoma with all animals being handled according to NIH guidelines for the compassionate use of laboratory animals. Forty male, Sprague-Dawley rats (Harlan, Indianapolis, IN) were acclimated and given unlimited access to food and water prior to the experiment. Rats were anesthetized in a bell jar using 5 percent isoflurane in O₂:N₂, 25:75 percent mixture, intubated, weighed, and connected to a Harvard rodent respirator delivering 1.4 percent isoflurane in O₂:N₂, 25:75 percent, mixture with a tidal volume of 12 ml/kg at a rate of 72 bpm. The animals were placed in a supine position on an Aquamatic K20 circulating heating pad (GRI Medical Products, Bellville, OH) to maintain core body temperature. The tip of a PE50 catheter inserted through the left femoral artery was advanced into the abdominal aorta and connected to a Gould pressure transducer for measurement of arterial blood pressure. Heart rate was determined from the arterial pressure tracing.

Three groups of ten rats were subjected to a blast pressure wave centered on the xiphoid with the tip of the blast nozzle located at either 2.0, 2.5, or 3.5 cm from the sternum. Immediately before each blast, the rats were

temporarily taken off the ventilator. Control animals were subjected to the same experimental protocol but did not receive a blast. After an initial baseline reading, mean arterial pressure and heart rate were measured every fifteen minutes for the first hour and every thirty minutes thereafter. Death was defined as a mean arterial pressure less than 30 mmHg for greater than 15 minutes.

Pathologic evaluation:

After three hours, all survivors were euthanized while under anesthesia and necropsy was performed. Gross inspections for typical pathologic findings associated with blast wave injury, such as pulmonary hemorrhage, air emboli, hemoperitoneum, and intestinal serosal hemorrhage, were recorded. The intestines were examined macroscopically for areas of focal hemorrhage using a five-point scale (0 = clear, without evidence of hemorrhage, 1 = light, petechial hemorrhage, 2 = petechial hemorrhage in a banding pattern, 3 = light hemorrhagic banding, and 4 = heavy hemorrhagic banding). The intestines were removed and fixed in 5 percent formalin for histological study using the "Swiss roll" method.⁵ The lungs were excised en-bloc, cleaned of extraneous tissue, weighed, and infused intratracheally with 5 percent formalin. Sections of liver, heart, brain, and kidney were fixed in 5 percent formalin. All tissues were paraffin embedded and examined by light microscopy. Pulmonary hemorrhage and edema was quantitated using the lung weight to body weight ratio.⁶

Statistical analysis:

Heart rate and mean arterial pressure were analyzed using a repeated-measures analysis of variance (ANOVA). Post-hoc individual time comparisons were made using Duncan's new multiple range test. Mortality and hemoperitoneum were assessed using Chi-square. Lung wt/body wt ratio and body wt were compared using Student's unpaired *t*-test. The nonparametric median test was used to analyze the intestinal pathology scores. Differences were considered to be significant when the probability level for a chance result was less than 0.05.

Results

Body weight was not statistically significant between the groups (Table 1). Mortality was 60 percent in the 2.0 cm group, all of which died in the first hour (Table 1). All other rats survived the duration of the study.

Table 1. Selected Results from Exposure to Graded Blast Waves

	Weight (grams)	Intestinal score	Hemoperitoneum	Mortality
control	325 ± 11	0 ± 0	0/10	0/10
3.5 cm	323 ± 7	0 ± 0	2/10	0/10
2.5 cm	321 ± 7	1.0 ± 0.4	4/10	0/10
2.0 cm	332 ± 6	0.8 ± 0.5	6/10*	6/10*

Data are mean ± SEM. *p ≤ 0.05 vs control.

Pressure Recording at 2.0 cm

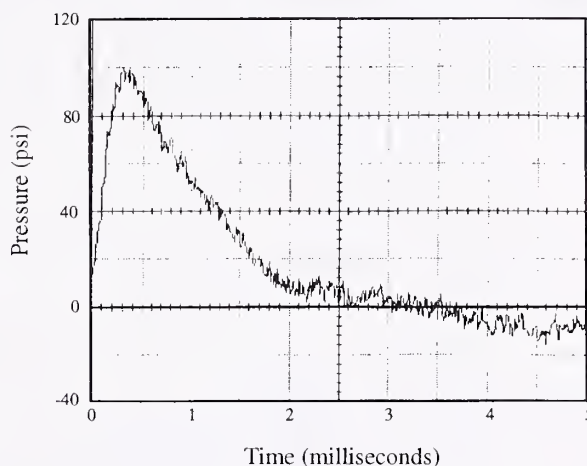


Figure 2: Pressure recording over time at 2.0 cm from the blast wave generator.

Peak Pressure

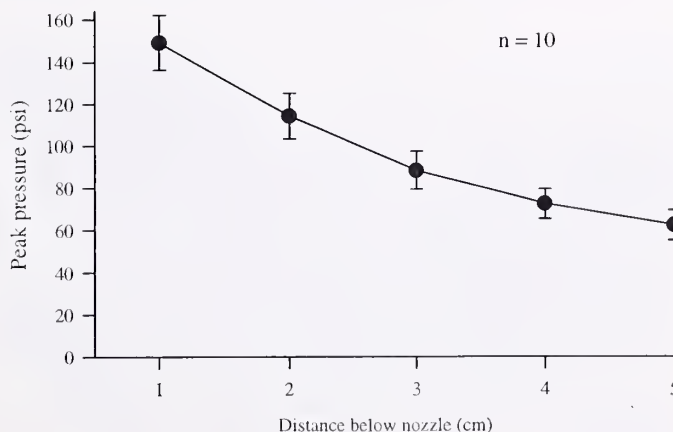


Figure 3: Peak overpressure measured at varying distances from the blast wave generator

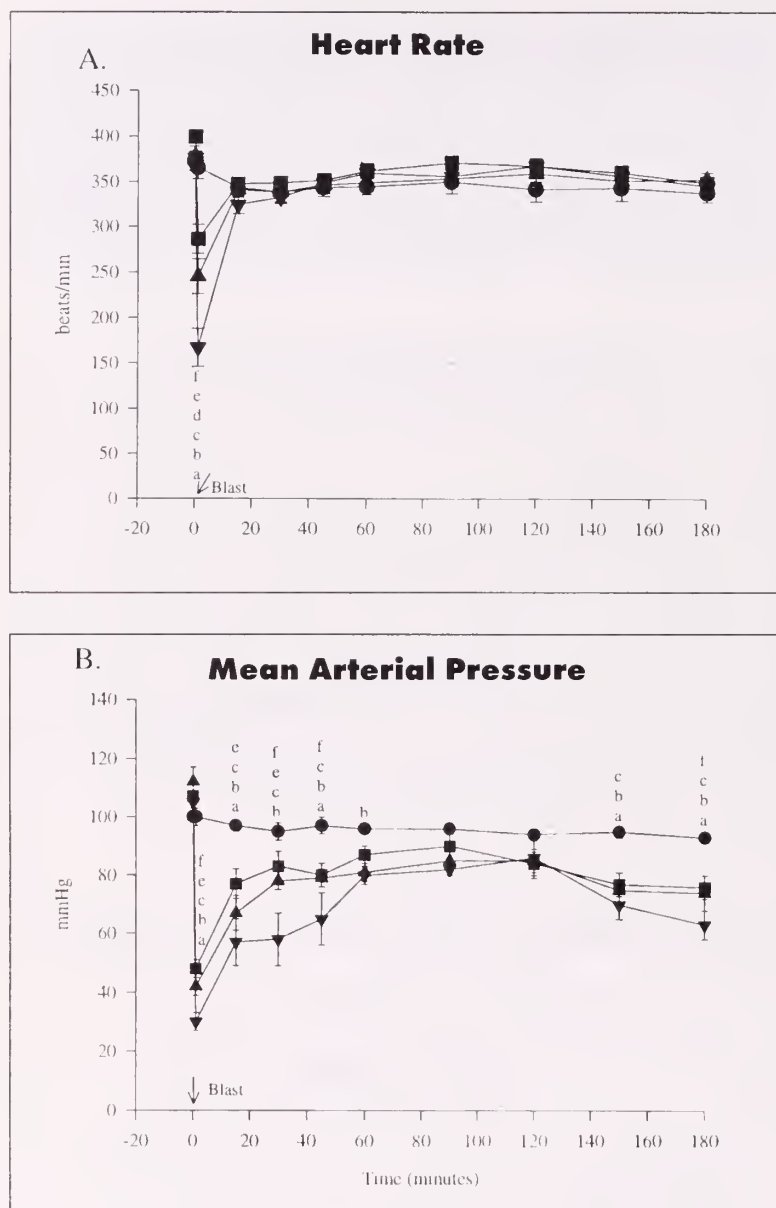


Figure 4: The effects of blast pressure waves on A. Heart rate and B. Mean aortic blood pressure. Symbols representing each group are as follows: ● Control group; ■ 3.5 cm group; ▲ 2.5 cm group; and ▼ 2.0 cm group. Statistically significant differences ($p < .05$) are denoted by: a, Control vs 3.5 cm; b, Control vs 2.5 cm; c, Control vs 2.0 cm; d, 3.5 cm vs 2.5 cm; e, 3.5 cm vs 2.0 cm; f, 2.5 cm vs 2.0 cm.

Blast wave generator:

Pressure curves over time from our blast wave generator revealed a near instantaneous 100 percent rise time (<0.4 msec) to the peak pressure, duration of 1.5 to 3 msec, and a negative phase or suction (Fig. 2). The peak pressure decayed rapidly as it expanded from the blast wave generator (Fig. 3), allowing rats exposure to different blast intensities by simply varying the distance between the blast wave generator and the rat.

Hemodynamics:

The animals developed severe bradycardia immediately after the blast that was only transient in nature with a return to control values within fifteen minutes (Fig. 4A). Within seconds of the blast wave, the animals developed profound hypotension to less than 50 percent of control levels (Fig. 4B). Over time, the survivors' mean arterial pressure slowly recovered but never reached preblast levels. After two hours the rats, again, became significantly hypotensive when compared to controls.

Pathology:

At autopsy, no rats showed external signs of injury. Internally, tissue damage occurred mostly to air containing organs such as the lungs and intestines. The most frequent and obvious injury was bilateral pulmonary hemorrhage occurring mostly in the lower lobes near the diaphragm and medially near the mediastinum. Microscopically (Fig. 5) the blasted rats' lungs showed characteristic signs of blast injury such as disruption of the alveolar parenchyma and capillaries with exudation of blood and fluid into the interstitial and alveolar spaces.^{7,8} Pulmonary injury, quantitated by lung wt/body wt ratio, increased with higher intensity blasts signifying increased pulmonary hemorrhage and edema. (Fig. 6) Air emboli were seen grossly in the left ventricle of the heart and large arteries of a few animals blasted at 2.0 cm and histologically in the bronchial and cerebral arteries. Air emboli were not seen in the control animals or venous circulation of the blasted animals.

Gross examination of the intestines showed a variety of lesions from punctate hemorrhages to discrete annular hemorrhagic bands with intramural hematoma although not statistically significant between groups (Table 1). Light microscopy revealed subserosal hemorrhage and focal areas of necrosis with sloughing of the crypts and villi (Fig. 7).

Microscopic examination of the heart showed evidence of myocardial contusion. Hemoperitoneum, presumably from fracture of the liver, occurred more frequently in higher intensity blasts (Table 1). The kidneys of our blasted rats contained microscopic hemorrhage most frequently at the medullary-cortex junction.

Discussion

The damage inflicted on the human body by bomb blasts is mediated by three different mechanisms. Primary blast injury, which is the focus of this study, results from the impact of the blast wave on the body. Secondary blast injury is caused by tissue penetration of flying debris created by the blast pressure wave.² Tertiary blast injury occurs from collapsing buildings or the result of the body being violently thrown. Primary blast injury can occur by itself or, more commonly, in conjunction with secondary or tertiary injuries. Primary blast injury inflicts a unique form of trauma without external signs of injury causing it to be easily overlooked in mass casualty situations. To study this unique form of trauma required the development of a new model that is reproducible, safe, and allows for physiologic monitoring.

Blast wave generator:

Our blast pressure waves were reproducible and identical in form to blast waves from high energy explosives such as trinitrotoluene,^{1,9} allowing the study of blast injuries in a safe laboratory setting. The peak pressure from our blast wave generator could be easily increased or decreased by simply changing the distance between the blast wave generator and the rat.

Hemodynamics:

The immediate, transient bradycardia that we witnessed has been attributed to a vagal reflex.¹⁰ Hypotension after a blast injury has been measured by some investigators^{10,11} and is believed to result from myocardial ischemia from air emboli to the coronary arteries or cor pulmonale, but the etiology remains unproven.

Pathology:

Injuries occurred most commonly in gas containing organs such as the lung and intestines. The pathognomonic sign of blast wave injury is pulmonary hemorrhage and edema, sometimes called "blast lung." Blast injuries disrupt the alveolar parenchyma and capillaries causing hemorrhage and edema by two mechanisms:

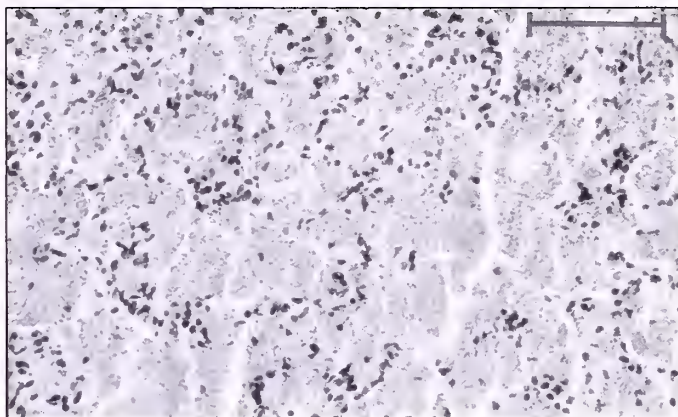


Figure 5: Photomicrograph of pulmonary hemorrhage from disruption of the alveolar septa and capillaries. Bor = 0.5 mm.

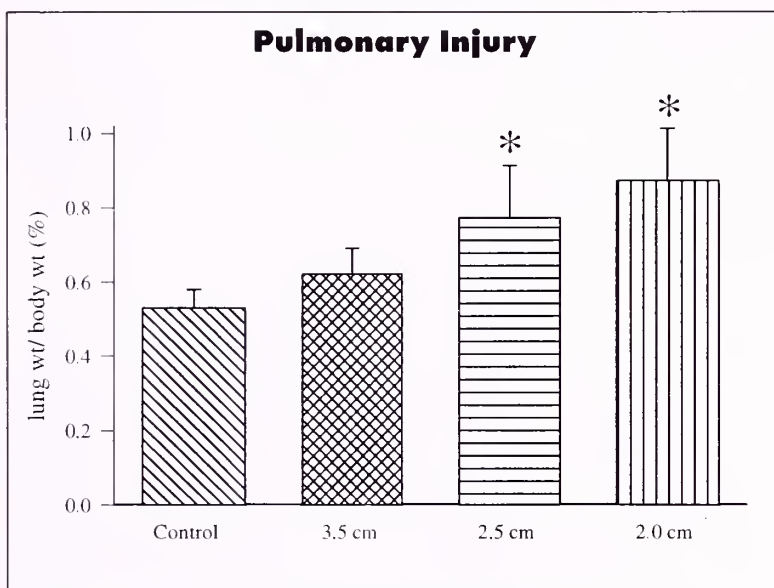


Figure 6: Lung weight to body weight ratio at varying distances from the blast wave generator. * $p \leq 0.05$ vs control.

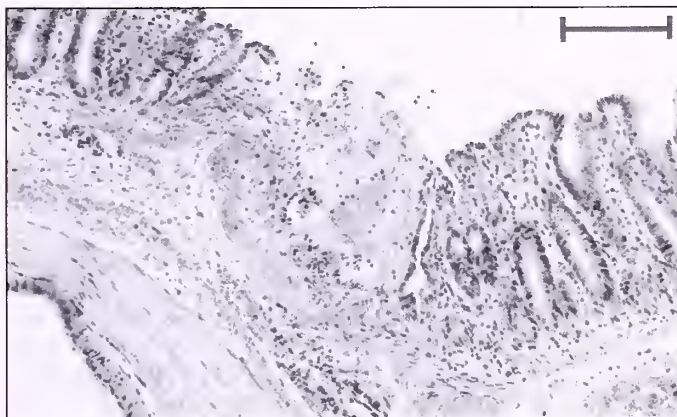


Figure 7: Photomicrograph of subserosal bowel hemorrhage with focal areas of necrotic crypt and villi. Bor = 1.0 mm.

compressive strain and deformation of the chest and abdominal walls^{2,12,13} and direct transfer of the blast wave into the body parenchyma leading to injury by spalling, implosion and inertia.^{14,15} Lung injury among our rats was most commonly seen in the lower lobes, probably from compression in the costophrenic sinus. The characteristics of "blast lung" occurred regularly in our model with increasing damage seen following higher intensity blasts.

Air emboli is thought to be the predominant cause of immediate death after blast wave injury^{10,16} and are difficult to detect because of rapid air absorption in the capillaries. Emboli arise from air injected into a blast-induced alveolar-venous fistula that flows into the systemic circulation and the cerebral and coronary arteries.^{10,16,17} Air emboli were seen histologically in the 2.5 and 2.0 cm group and grossly in the systemic arterial circulation of a few animals of the 2.0 cm group.

The intestines, an occasional site of blast wave injury, classically develop subserosal hemorrhage that arises from shear stress between the mucosa and the muscular layers.¹⁴ Damage occurs most commonly in areas with large gas pockets such as the stomach and cecum.^{18,19} Focal areas of intestinal necrosis is probably due to ischemia from air emboli and may result in delayed perforation.¹⁹ In our study, subserosal hemorrhage and microscopic evidence of villi and crypt necrosis were identified in a small number of animals.

Blunt trauma resulting in liver fracture and hemoperitoneum were seen more frequently in animals exposed to higher intensity blast, apparently caused by the compressive effects of the blast wave upon the body.

Conclusion:

In this study, we developed a blast wave generator that produces pressure waves similar to high energy explosives and produced pathologic injuries in rodents that appeared identical to clinical case reports and previous animal experiments. This blast wave generator allows an inexpensive, safe method to study global primary blast injury. This method avoids the dangers of open field explosives, the expense of complex shock tubes, and allows the observer immediate contact with the animal in a laboratory setting. This model provides a powerful tool for studying the pathophysiology and potential treatments of bomb blast victims. J

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Women's Orthopedic Problems: A Review of their Occurrence and Management

Erin McLemore, MD; William A. Grana, MD, MPH

Introduction

Women comprise an ever increasing and unique portion of the orthopedic patient population. They have a variety of problems, which include problems common to both women and men, and those unique to the female population. Not only do women comprise 50 percent of the population, they are also nearing 50 percent of the work force. The increasing number of working women and single parent households places more women in a decision-making role for health care for both themselves and their families. It is important women pick the best physician to manage their problems.

The number of females needing orthopedic care increases as the population ages. Women not only have a longer life span than men, but also have a higher incidence of orthopedic problems seen in the geriatric population including osteoarthritis, osteoporosis and foot problems. However, the most significant increase in female orthopedic patients has occurred in the last 20 to 30 years with a dramatic increase in athletic participation by women. A combination of changes in social acceptance and public funding policy have led to a significant increase in the number of women participating in both organized and recreational athletic activities. For example, at NCAA schools in the last five years, there has been a 48-percent increase in women's soccer programs. This increased participation has led to the recognition of several problems which, if not unique to women, are definitely more common. These include both injury and non-injury problems which must be identified and addressed.

The purpose of this discussion is to review the diagnosis and treatment of these unique

problems which affect women and which require special consideration by the treating physician.

The Active Female and Orthopedic Problems:

It is very common today to see women participate in sports, running, or strength training. The current social emphasis on physical fitness for health and to maintain an accepted body image have influenced this change in the general population. However, the acceptance of females in organized sports has varied greatly.

The Social Acceptance of Women's Participation in Sports: Author's Stance and Political Perspective

In the Victorian era, upper class women were distinguished by their appearance as pale, frail, beings. In addition, the female reproductive system was not only a mystery, but was considered to be the source of illness and emotional problems.¹ During this time, women's participation in sports was limited to non-strenuous activities such as golf, archery and croquet. During a woman's "sexual storms," all physical activity was to be halted, and at times bedrest was prescribed. However, lower class women were felt to be immune from these problems and therefore could continue their daily work activities.¹

During the late 19th and early 20th century, women's achievements included an increase in female enrollment in college. Although colleges had an active sports program for men, many felt that for women, competition would breed aggressiveness and aspirations of individual excellence which would be counter to a woman's normal modesty and sensitivity. "Play Days" were specifically designed to minimize

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competition while still allowing women to participate in athletic pursuits.² Unfortunately, several prominent physicians during the time warned that excessive exertion might injure a woman, especially her reproductive organs.¹

From the 1920s to World War II, changes in society's view about women and restrictions on their conduct led to greater participation in sports. Dress modification allowed women more freedom, and female athletes showed the world their ability to succeed. Gertrude Ederle became the first woman to swim the English Channel, and in this accomplishment, beat the male record by two hours.²

During World War II, women were asked to accept roles in society and the workplace never available to them before. "Rosie the Riveter" became a patriotic symbol of the strong woman. Seldom before in the United States had femininity and strength been linked so closely as they were during this era. Phillip Wrigley, owner of the Chicago Cubs, started the first female professional baseball team, and it did seem to open the door for professional female athletes. Although female athletes appear well accepted now, the very short history of this acceptance should be stressed. In 1967, Katherine Switzer entered the Boston Marathon as "K. Switzer." Despite the efforts of the marathon officials, "K. Switzer" did complete the race and became the first woman to run an organized marathon. It was not until 1984, however, that females first competed in an Olympic marathon. In the Barcelona Olympics, Zhang Chan scored a perfect score of 200 in the skeet competition, but she could not compete in the Atlanta Olympic Games because skeet shooting was made an all-male competition.

Participation in athletic competition by females is important not only on the basis of rights, but also on the basis of health and well being. Recent studies show that exercise may reduce the risk of breast cancer as well as decrease the risk of osteoporosis.³ Moreover, there are important social effects as well. Eighty percent of female high school athletes increase their chances of avoiding unwanted pregnancies. Female athletes are three times more likely to graduate from high school than other female students.⁴ Testing has also shown that female athletes have higher self esteem and lower rates of depression than other female students.⁵

In 1972, the Education Amendment Act, also known as Title IX, was passed. This act

prohibits gender discrimination in the provision of educational programs and activities in federally funded institutions. It was designed to provide athletic opportunities for females in proportion to their enrollment. In addition, scholarship money was to be proportional to female participation. Although passage of Title IX has led to some dramatic improvements in the development of funding of female athletics, there are continued discrepancies. Although females represent 53 percent of undergraduates, they represent 34 percent of athletes, and female athletes receive less than 33 percent of athletic scholarship money distributed in the United States by NCAA schools. This discrepancy results in males receiving 179 million dollars more each year in scholarship money than female athletes receive. In division I-A women's programs receive 18 percent of the athletic budget.³ Despite these continued problems, women's athletics grow and prosper, and in women's professional sports, there are larger amounts of money for salaries and purses and improved media coverage.

ACL Injury and the Female Athlete

Since the passage of Title IX in 1972, female participation in high school and collegiate athletics has increased from 300,000 to over 1.9 million. In the years following this increase in participation, epidemiologic studies have shown that women have had a much higher rate of ACL ligament injury than men. The NCAA had a five year evaluation of both men and women soccer and basketball participation. The injury rate was defined as the number of injuries per athletes at risk, which is the injuries per 1,000 athlete exposures. In soccer, women were noted to have twice as many ACL injuries per exposure than men. In basketball, the rate of female ACL injuries was 122 compared to 24 for males for a similar number of athlete exposures.⁶

There are many theories attempting to explain the dramatic differences in the rate of ACL injury between men and women. These theories have included differences in conditioning, training methods, ligament size, notch size, ligament laxity, strength and coordination. To date, no single factor has been identified which can account for the difference in injury rates, and it is currently felt that this is a multifactorial problem. Ongoing studies will continue to evaluate these factors as well as new factors including the effect of estrogen receptors in the ACL ligament.

The Female Athlete Triad:

As the number of female athletes grows, certain conditions unique or at least more common to female athletes have been identified. One of these problems is actually a triad unique to the female athlete and includes disordered eating, amenorrhea, and osteoporosis.

There are several paradigms to explain the cause of the triad, but most recognize it takes a combination of strenuous training, increased psychological stress, and dieting to produce the clinical picture. Each of these separate problems may be seen in any individual athlete and should be recognized and treated. When seen together they represent a significant risk to the athlete's health.⁷

Disordered Eating

Disordered eating involves a spectrum of abnormal eating patterns including preoccupation with food to the extremes of anorexia and bulimia. The female athlete is more at risk for this problem because of a combination of society's and the coach's expectation of body image as well as the demands of athletic participation. Females normally have a higher percentage of body fat than males. In addition, their resting metabolic rate is lower than men and therefore maintaining the proper body type and percent body fat is more difficult for a female athlete.

Anorexia is characterized by body weight 15 percent below the expected body weight for height, an abnormal body image and amenorrhea. About one percent of all young women have anorexia. Bulimia is an eating disorder characterized by bingeing, purging and loss of control during eating. Two to four percent of the general population of females is bulimic.⁸ Studies of elite athletes have shown that between 15 percent and 62 percent reported disordered eating patterns, including anorexia and bulimia.^{9,10} Eating disorders lead to loss of muscle mass and electrolyte imbalance, as well as amenorrhea. Between 10 percent and 18 percent of patients with anorexia will die from their disease.

Amenorrhea

The second portion of the female athlete triad is athletic amenorrhea. Five percent of all females are amenorrheic and eight and a half percent of adolescent females are amenorrheic. Of the vigorously exercising population, 10 percent to 15 percent of the women experience amenorrhea and 45 percent to 50 percent of elite runners, ballerinas and gymnasts are amenorrheic.¹¹

Amenorrhea is diagnosed by the absence of a period for six months or absence of bleeding for a time equivalent to three cycles. In addition, amenorrhea is defined when no periods are attained by 16 years of age or if there is no sexual development by 14

years of age.¹² The most common cause of amenorrhea is pregnancy, and this should be the first suspected cause of amenorrhea in any patient. Other common causes of amenorrhea include congenital problems and ovarian failure. Pituitary abnormalities, and hypothalamic dysfunction can result from excessive exercise, stress or weight loss. Athletic amenorrhea is a hypothalamic amenorrhea in which release of GnRH is deficient or absent, and it is a diagnosis of exclusion. Evaluation should include a careful history including nutritional habits, a gynecological exam including a pregnancy test, a test for prolactin, estradiol, luteinizing hormone and follicle stimulating hormone. A progesterone challenge is also recommended.¹³ (Table 1)

Many female athletes do not consider amenorrhea to be a problem and may not seek medical attention for it. Many feel it is desirable and perhaps helpful to performance. Recent studies show there is no difference in oxygen uptake, minute ventilation or exercise to fatigue with amenorrhea, but musculoskeletal injuries are increased in patients who are amenorrheic.

Amenorrhea and Osteoporosis

Amenorrhea can pose a true danger to the patient's well being since the estrogen and progesterone levels in an amenorrheic athlete are the same as the levels of a post menopausal woman. Most of these women are young and are losing bone mass when they should, in fact, be storing it. There is a linear relationship between the irregularity of menses and vertebral bone mass density. The bone mineral density of young women with several years of amenorrhea may

Table 1. Differential Diagnosis of Amenorrhea

Cause	Laboratory
Pregnancy	Pregnancy test
Congenital discontinuities	
Ovarian failure	Low estrogen, high FSH
Normal menopause (> 40 ya)	
Chromosomal abnormalities	Karyotype
Testicular feminization	
Turners	
Pituitary abnormalities	
Prolactin secreting adenomas	Elevated prolactin
Medications	
Phenothiazine	Elevated prolactin
Metoclopramide	Elevated prolactin
Hypothalamic amenorrhea	Abnormal or decreased release GnRH
	Low estrogen
	Normal or low LH & FSH

be the same as post menopausal women without estrogen replacement.¹⁴

The treatment of athletic amenorrhea hinges on the importance of gaining normal hormone levels. Most of the time this can be obtained by decreasing the training and attaining a normal weight in the patient. At times, estrogen replacement is necessary, but it is also important the physician consider the possibility of an eating disorder in the athletic amenorrheic patient.

The Older Female and Osteoporosis:

Osteoporosis is a progressive disease of the skeleton caused by an imbalance in the rate of bone loss and bone replacement. The complications of osteoporosis are fractures which have a profound effect on the patient, the family, and on society.

Osteoporosis is divided into two types. Type I or post menopausal osteoporosis is an estrogen deficiency which occurs in women approximately 15 to 20 years after menopause. This osteoporosis predominately affects trabecular bone.

Type II or senile osteoporosis affects both men and women. These patients are over the age of 70 years and both cortical and trabecular bone is equally affected. Type II osteoporosis occurs as a function of both aging and long-term calcium deficiency.

Osteopenia

Osteopenia refers to the radiographic finding of decreased bone density using standard x-ray techniques. Osteopenia is not detectable until total bone density has diminished by 30 percent to 50 percent. This is late in the disease and therefore an improvement in the outcome may not occur even with aggressive treatment. Hence, awareness and an understanding of the meaning of the radiographic finding is very important.

Osteopenia is caused by primary osteoporosis, osteomalacia, disuse osteopenia, neoplasm, nutritional disorders and endocrine disorders. Whenever a patient presents with osteopenia, the diagnosis of osteoporosis should be made only after evaluation for these other causes of osteopenia.¹⁵ (Table 2)

Risk Factors for Osteoporosis

The genetic and biologic risk factors include slight build, the female sex, early menopause, northern European descent, and fair hair and skin. In addition, certain behavioral and envi-

Table 2. Differential Diagnosis of Osteopenia

Primary osteoporosis
Type I, postmenopausal
Type II, senile
Osteomalacia
Impaired vitamin D metabolism
Malabsorption
Vitamin-D resistant rickets
Aluminum intoxication (hemodialysis patients)
Endocrine disorders
Cushing's disease
Diabetes mellitus
Estrogen deficiency
Hyperparathyroidism
Hypogonadism
Iatrogenic glucocorticoid treatment
Disuse disorders
Prolonged immobilization
Paralysis
Neoplastic disorders
Leukemia
Multiple myeloma
Nutritional disorders
Anorexia nervosa
High protein diet
High phosphate diet
Low calcium diet
Alcoholism
Hemolytic disorders
Sickle cell anemia
Thalassemia
Collagen disorders
Homocystinuria
Osteogenesis imperfecta

ronmental risk factors are also important. These include a history of smoking, excessive alcohol intake, inactivity, and eating disorders.

For each patient the risk of developing osteoporosis depends on three factors. The first is the peak bone mass which is attained between the age of 16 and 30 years. The next factor is the rate of bone loss. After the peak bone mass is attained, every person, male or female, will have a gradual bone loss throughout their life. The last factor is the patient's ultimate age. To prevent osteoporosis, it is imperative to optimize the peak bone mass as well as slow the rate of bone loss.¹⁶

As previously stated, the chance of developing osteoporosis depends both on the peak bone mass and the rate of bone loss. Men normally lose 0.3 percent of their total bone mass per year while women lose 0.5 percent per year. In addition, women experience an accelerated loss rate of 2 percent to 3 percent of their total bone mass per year beginning after menopause, and extending for 6 to 10 years after menopause.¹⁵ It

is this accelerated loss after menopause and differences in peak bone mass which contribute to the difference in the occurrence of osteoporosis between men and women.

Prevention

The prevention of osteoporosis is best done by the attainment of a large peak bone mass during adolescence. During the adolescent years, 48 percent of peak bone mass is formed. Because of this tremendous bone growth, 1,200 to 1,500 mg of calcium per day are needed to provide adequate calcium storage and mineralization of the bone. Unfortunately, these needs occur at a time when few female adolescents are concerned about their nutrition and many experiment with fad diets.

The prevention of osteoporosis is also affected by avoiding tobacco and alcohol, regular aerobic exercise and strengthening, and a balanced diet, which includes adequate calcium throughout life. At risk patients should be identified by family history and bone densitometry to provide early treatment.

Diagnosis

Patients at risk for osteoporosis are identified by personal and family history of inadequate diet, history of fractures or a strong family history of osteoporosis. These patients are evaluated for osteoporosis with the use of AP and lateral thoracic and lumbar vertebral films. The vertebral bodies are the most commonly affected bones with osteoporosis and most patients with established diagnosis of osteoporosis have compression fractures. More sensitive diagnostic tools have been developed to allow earlier detection of osteoporosis. These methods include single energy x-ray absorptiometry (SEXA), dual energy x-ray absorptiometry (DEXA) and quantitative computer tomography (QCT). These methods rely on determination of the bone mineral density. The most accurate and precise of these methods is the DEXA method.¹⁵ Each patient's bone density is then plotted against the mean for healthy, young adults. Bone mineral density (BMD) between 1.0 and 2.5 standard deviation below the mean is diagnostic of osteopenia. Osteoporosis is a bone mineral density greater than 2.5 standard deviations below the mean for the healthy young adult.

Treatment

At the time of diagnosis of osteoporosis, it is obviously too late to effect the patient's peak bone mass. Therefore, the rate of bone loss

becomes the key factor in treatment. Obviously behavioral risk factors including alcohol intake, diet and smoking should be addressed. In addition, the importance of weight bearing exercises should be stressed to the patient. Also, the patient's children should be alerted to the diagnosis so that they can be aware of their own personal risk for developing osteoporosis in the future.

Before beginning the pharmacological treatment of osteoporosis, the patient's personal history of deep vein thrombosis (DVT), breast cancer and endometrial cancer should be obtained since treatment with estrogen may be contraindicated in the presence of a positive history.¹⁵ Patients with a history of DVT, breast or endometrial cancer should be followed with mammograms and gynecological exams.

The treatment of osteoporosis with estrogen is most effective in the first few years after menopause when a dramatic increase in the yearly bone loss is experienced. Estrogen has a direct effect on bone resorption and can prevent the accelerated bone loss seen after menopause. It should be noted that whenever the supplemented estrogen is discontinued, the patient can be expected to experience accelerated bone loss. The addition of calcium to the hormone replacement improves the effects of hormone treatment alone. However, calcium alone does not change the accelerated rate of bone loss in the post menopausal patient.¹⁵

Calcitonin has also been used to treat osteoporosis. It is a naturally occurring hormonal compound which has been shown in studies to increase the bone mass and decrease fractures. It is now available in a nasal spray, and once again, adequate calcium intake is mandatory for maximal benefit.

Alendronate, a nonhormonal compound, is a bisphosphonate which has recently been shown to have a significant effect on bone mass. Bone mass gains of up to 10 percent have been reported with the use of this compound. There is a significant percent of patients who will have problems tolerating the medication and its poor absorption requires the patient to take the medication on an empty stomach and not eat for at least 30 minutes following administration.¹⁵

While the patient is treated with any of these medications, a balanced diet with adequate calcium intake of 1.2 to 1.5 grams is important. A program of aerobic and strengthening exercise should also be maintained. The orthopedist is uniquely positioned as a provider of primary musculoskeletal care to identify and initiate

treatment for osteoporosis either personally or by referral.

In conclusion, the female orthopedic patient has an interesting and ongoing history. The aging population and increasing number of female athletes will make the problems addressed here of increasing importance. The female patient may present to the physician with unique problems and this should be recognized and addressed accordingly. J

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A Clarification...

Richard B. Dawson, MD, author of "The Sick Building Syndrome: A Danger to Your Health," which ran in the September 1998 issue of the *JOURNAL*, is an assistant clinical professor of otolaryngology at the University of Oklahoma College of Medicine.

Forty-Six-Year-Old Man with Unexplained Hematuria, Proteinuria, and Pulmonary Infiltrates: A Clinicopathologic Correlation Conference from the University of Oklahoma College of Medicine

Shawn Lee, MD; Max Walter, MD; Morris Reichlin, MD; Fred Silva, MD

Case Presentation

Shawn Lee, MD

The patient was a 46-year-old black male initially admitted for unexplained hematuria and proteinuria. The patient had presented three months prior with symptoms of dysuria and gross hematuria. A urinary tract infection was treated, but microscopic hematuria persisted. Intravenous pyelogram (IVP) and cystoscopy were unremarkable and he was referred to the renal clinic. His symptoms at that time included right hip pain and fatigue. His 24-hour urine protein was 1.39 g. Antinuclear antibody was positive at 1:360. The hematocrit was 26.7%; serum creatinine 1.5 mg/dl. Serum protein electrophoresis revealed polyclonal gammopathy. The remainder of the lab was unremarkable. The renal ultrasound was unremarkable. A renal biopsy revealed atypical membranous glomerulonephropathy as well as perivascular mononuclear inflammatory infiltrate, focal tubular atrophy, and interstitial fibrosis. A bone marrow biopsy revealed normal marrow with adequate iron stores. Gram, acid fast (AFB), and fungal stains and cultures were negative.

The patient was readmitted four months later with subjective fever, shortness of breath, night sweats, and a 19-lb. weight loss. The history at that time was negative for hemoptysis, sinusitis, epistaxis, or rash. The patient was a nonsmoker. He used ethanol, about two to four drinks per day. There was no history of intravenous drug use. At the presentation, he appeared ill but physical examination was alert, oriented, and in no acute distress. Initially, the patient was afebrile, slightly hypotensive and tachypneic, and had a significant tachycardia. The lung

exam revealed fine crackles and faint expiratory rhonchi in the left lower lobe. The stool was guaiac positive. The remainder of the exam was unremarkable.

A chest x-ray revealed bilateral reticular nodular infiltrates without cardiomegaly. Computerized tomogram (CT) of abdomen and pelvis demonstrated no masses or lymphadenopathy. Therapy was started with oxygen, ipratropium and albuterol updrafts, trimethoprim-sulfamethoxazole, prednisone, and erythromycin. Shortness of breath improved. The patient's temperature peaked at 101.4° F. An induced sputum grew normal flora and a direct fluorescent antibody (DFA) for *Pneumocystis carinii* (PCP) was negative. PPD and mumps skin tests were both nonreactive at 48 hours. A fiberoptic bronchoscopy with biopsy and bronchoalveolar lavage revealed grossly normal airways but tenacious secretions were present. The gram stain on the lavage specimen revealed rare gram positive cocci in pairs; AFB and DFA for PCP were negative. The cytology was negative for malignancy; the lung biopsy showed nonspecific interstitial fibrosis and chronic inflammation. On day seven, a diagnostic report was received.

Question: How about his sexual orientation?

Dr. Lee: He practiced homosexuality although he hadn't been sexually active for six years when we saw him. He also reported a recent negative HIV test.

Question: Did he have a serological test for syphilis?

Dr. Lee: I can't recall if that was done at the time of our evaluation.

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Figure 1: Lateral chest film 12/5/96. There is bilateral blunting of the posterior costophrenic sulci.



Figure 2: Coned down view of the right lung 4/3/97 demonstrating blurring of the pulmonary vessels and multiple soft, rounded densities in a central distribution. There appears to be an occasional cyst.



Figure 3: Coned down view of the left lung 4/3/97 showing findings similar to the right lung.

Radiology

Max Walter, MD

Before his first admission, an IVP showed large post-void residual urine in the bladder consistent with prostatitis or prostatic hypertrophy. During the first admission, a retroperitoneal echogram showed borderline splenomegaly. CT of the abdomen and pelvis during the second admission showed borderline hepatosplenomegaly and mild myositis ossificans of the right hip. During the first admission, chest PA and lateral films were reported as normal, but in retrospect the lateral view shows bilateral blunting of the posterior costophrenic sulci (Fig. 1) consistent with small bilateral pleural effusions.

At his second hospital admission, chest films demonstrated subtle abnormalities. The vascular structures were blurred. There were multiple soft, rounded densities in both lungs and there was an occasional cyst. These are best shown on this coned down photograph of the right lung (Fig. 2) and left lung (Fig. 3). This appearance is consistent with a reticulonodular or interstitial infiltrate. An infiltrate like this one is very non-specific. The radiologist's impression will likely vary with the history furnished by the referring physician. If the history is chronic anemia or chest pain, then early pulmonary edema is a consideration, even with a normal size heart. If the patient presents with

fever and a high white count, these findings could be interpreted as bronchopneumonia. The very first stage of a consolidating pneumonia could also look like this infiltrate. If the history is immune deficiency, then an infiltrate like this may be called consistent with *P. carinii* or cytomegalovirus. To summarize, the infiltrate is non-specific and consistent with a number of possibilities. Given the current history of past homosexuality, chronic anemia, and kidney disease, these inconspicuous infiltrates may well be due to *P. carinii* or cytomegalovirus.

Discussion

Morris Reichlin, MD

This is obviously a patient with multi-system disease. We have proteinuria and formed elements in the urine; we have anemia and a positive ANA. We have renal disease and Dr. Silva will inform us as to what all that means. You have just seen the chest x-ray; this man had some GI bleeding six months earlier and he had positive stool guaiac at the end. He had tachycardia, fever, and weight loss. If we summarize systems into an overall picture, we have nephritis with proteinuria, hematuria and decreased renal function. We have some kind of pulmonary infiltrative disease; we have a systemic disease with anemia, fever and weight loss, positive ANA and some GI bleeding. Now if you start to add things up, even without the renal or

lung biopsies, this really sounds like a case of lupus. What are the data that would identify a patient with lupus if we were going to put him into a research study? Well, this patient does not quite make it on the new American College of Rheumatology criteria because, although he has many things that satisfy the criteria for lupus in terms of renal involvement, that only counts for one criterion. He is anemic and lymphopenic and I'll come back to that later when I discuss the case. His lymphocyte count was 920 and then at the end it was quite low at 708. We don't know the CD4 or CD8, but that's a low lymphocyte count. He had an antinuclear antibody. So he meets only three of the American College of Rheumatology criteria. To enter a study, four criteria are required.

He has a lot of other nonspecific things, all of which happen commonly in lupus. So, he could have lupus and I can't rule that out, but I don't think he has lupus. My reasons are as follows. In lupus with active nephritis, hypocomplementemia is the rule; his serum complements were normal. About 80 percent of active untreated lupus, maybe even 85 percent if you use sensitive enough tests, have antibodies to double-stranded DNA; he doesn't have either of those. Therefore, the usual common things that occur in lupus patients with untreated active nephritis are absent here. Then there are a whole host of other antibodies—anti-Ro, Sm, RNP; these are also absent. One of these is present in up to 80 percent of lupus patients whether they have nephritis or not. Arthritis or dermatitis is present in about 90 percent of patients with active lupus; he doesn't have either of these. So while lupus is possible, it is unlikely with the findings as they exist.

What would satisfy me that he had lupus? If he had anti-double-stranded DNA, we wouldn't have a CPC, because the diagnosis would be clear-cut. But, if you look at all the other things that happen in lupus patients, they're all nonspecific. The renal findings, the lung findings, the brain findings, and the hematological findings. They are all nonspecific except for the skin disease. If you have somebody with a subacute cutaneous lupus rash, you've got something to hang your hat on. If you have that and a positive ANA, you're pretty sure the patient has systemic lupus. But that's it. Everything else is nonspecific. It depends on the clinical picture and the antibodies. So, I don't think he has lupus. Maybe I'll stop there before I go into all the other things that I think he doesn't have and give Dr. Silva a chance to talk about the kidney.

Fred Silva, MD

The renal biopsy contained 13 glomeruli of normal size and cellularity; these tangles of capillaries called the glomeruli had wide, open, patent capillary lumina. The glomerular capillary walls appeared thin and delicate (Fig. 4) and, at a higher magnification, you could see that there was really a pretty fine-looking glomerular basement membrane with no spikes. There were large visceral epithelial cells which betrayed the fact that the glomerulus was leaky and losing proteins from the capillaries. By light microscopy, the glomeruli looked like the process could be a minimal change glomerulonephropathy. There was evidence of mild vascular disease and interstitial fibrosis. There were a few tubular

casts to go along with the urinary findings. What was interesting and out of proportion to the glomerular process was an interstitial inflammation with lymphocytes and a few lymphoblasts. In one area, there was so much interstitial infiltrate that it was sort of prolapsing or protruding into an interstitial renal venule.

Twenty-five to 50 percent of adult patients with idiopathic nephrotic syndrome will have a membranous glomerulonephropathy. About another 20 percent will have minimal change disease or membranoproliferative glomerulonephritis. We performed immunofluorescence but it could not be interpreted due to technical problems. The electron microscopy, however, gave us the diagnosis. (Fig. 5) There were many discreet electron-dense immune-type subepithelial deposits strewn throughout the glomerular capillaries. Our diagnosis was an atypical or segmental membranous glomerulonephropathy.

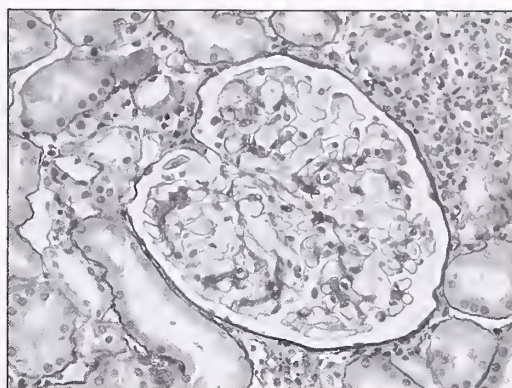


Figure 4: Membranous glomerulonephropathy. Silver-methenamine-stained section shows a typical glomerulus from the renal biopsy. The glomerulus is normal in size and cellularity and the glomerular capillaries are patent.

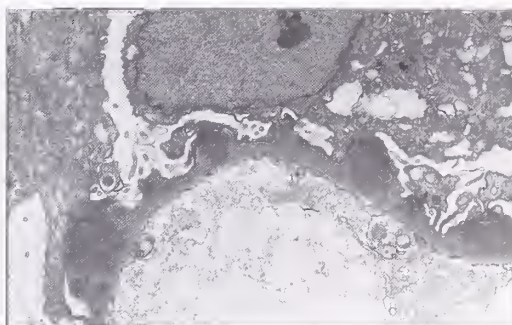


Figure 5: Electronmicrograph showing a segment of the glomerular capillary wall with a number of discrete electron-dense subepithelial "immune complex-like" deposits. (X9000)

Many, if not most, of the glomerular endothelial cells contained myxovirus-like or microtubular structures that we now call "interferon footprints." These are seen in a variety of diseases and are thought to be alterations of the endoplasmic reticulum in response to the presence of alpha-interferon. There were a few paramesangial deposits embedded in the mesangium and at the edge of the mesangium.

It is often not enough to render a diagnosis of membranous glomerulonephropathy. We would like to help the clinician and indicate the cause of this pattern. The limitation is that the kidney responds in a limited fashion to a thousand different injurious agents and there are a lot of disorders associated with, or leading to, a membranous glomerulonephropathy. The pattern is most commonly idiopathic, but can be seen in lupus, diabetes, and with a variety of infections, drugs, and neoplasms. In the early 1980s, Dr. E. Eigenbrodt and I studied 14 consecutive years and 104 renal biopsies with membranous glomerulonephropathy at UT-Southwestern Medical School in Dallas. About two-thirds of cases were idiopathic. About one-fourth of patients had lupus or about one-third were atypical lupus patients.

Membranous glomerulonephropathy can be seen in a variety of other settings and occasionally associated with diseases as diverse as sickle cell disease, fire ant bite, or obesity. Whether that relationship is "true-true-related" or "true-true-unrelated" is generally impossible to tell. Dr. Zoltan Laszik, my fellow in renal pathology, looked at the last consecutive 40 cases of membranous glomerulonephropathy at OU from mid-1994 to the present time. Of these 40 patients, half were idiopathic. About two-fifths were related to systemic lupus erythematosus. A few patients were considered to have atypical lupus. We had one patient in this time period who was HIV-positive and one being treated with gold for rheumatoid arthritis.

The pathogenesis of membranous glomerulonephropathy is related to immune complex deposition. They may be preformed circulating, small, low avidity, cationic immune complexes (IC). These ICs go through the glomerular wall and end up in the subepithelial area where the "humps" (subepithelial deposits) are. Alternatively, ICs can form locally; the best model of this is Heymann's nephritis, in which the antigen is a normal molecule at the base of the visceral epithelial cell, called glycoprotein 330, part and parcel of the clathrin-coated vesicle system. Antibody, induced experimentally,

circulates, crosses the glomerular wall, and reacts in situ to the normal antigen. Immune complexes by either mechanism affect directly the glomerular visceral epithelial cells, leading to proteinuria. Even though serum complement is not depressed, there is good evidence that activation of the terminal complement cascade C5-C9 makes the glomerular capillary wall leaky.

In summary, this biopsy was termed an atypical membranous glomerulonephropathy. Tubulo-reticular inclusions in the glomerular endothelial cells raised the question of lupus, other "collagen vascular diseases," or infections such as HIV. These interferon footprints can be seen in patients with viremia or in any patient treated with steroids.

Morris Reichlin, MD

I'm going to talk about a lot of things that I don't think are the diagnoses, but we need to think about them. Of course, if when I ask Dr. Silva to "show me the money" he comes up with evidence supporting one of these things, which I have discarded. I'll be a little embarrassed but I will at least have mentioned it.

With nephritis and pulmonary disease, we have to think about Wegener's granulomatosis. A negative ANCA is powerful but not perfect evidence against this; it's not 100 percent. Probably more important is the fact that there is no sinus disease which occurs in over 90 percent of Wegener's patients. Membranous nephropathy is not the histopathology of Wegener's. The usual picture is crescentic glomerulonephritis, so I don't think our patient has Wegener's granulomatosis.

We have a patient with a systemic disease with tachycardia, weight loss, fever and fatigue. We have to think about thyroid hyperfunction. We haven't heard anything about T4 and TSH levels. You can get membranous nephropathy and thyrotoxicosis according to the book that Dr. Silva gave me, even though he didn't mention it today. It's in his book so it's possible. A positive ANA is not unusual in Grave's disease. Interstitial lung disease is very unusual, so thyrotoxicosis is possible, but it would be a surprise.

What about the lung disease as the focus? Could this be interstitial lung disease with polymyositis? We heard about calcinosis in the muscle with weight loss, fever, fatigue, and GI problems. There could be a cancer associated with polymyositis and interstitial lung disease, but as Dr. Walters told us, the calcinosis and atrophy are probably related to trauma. The CPK was normal. Nothing was said about prox-

imal muscle weakness, just about general weakness, so there is very little data to support the central diagnosis of polymyositis. Now if the "show me the money test" turns out to be a profile from Dr. Targoff's lab with one of these highly specific anti-synthetases (myositis specific), then I'll turn a little red and say "Okay, that's the diagnosis," but I doubt it.

With some GI bleeding, could this man have a GI malignancy with membranous nephropathy? For the interstitial lung disease to conform to the law of parsimony, it should be metastatic cancer. We haven't seen the lung biopsy yet, but cancer in the lung wasn't prominent in the differential diagnosis of our radiologist. Probably this possibility isn't going to be important, but if a diagnostic test was a colonoscopy and they found a colon cancer, then I'd say "Wow, that's interesting."

All right, now, interstitial lung disease in a black man, we must think of sarcoid. This is possible. Clinical renal disease, however, is very, very rare in sarcoid. Positive ANAs are not part of sarcoid; okay, maybe a little bit above the background. Hilar adenopathy and erythema nodosum are both common in sarcoid and absent in this man. The presence of hypercalcemia, characteristic skin disease, uveitis, sicca and lymphadenopathy would suggest the diagnosis. All were absent in this man. If the lung biopsy shows us noncaseating granulomas, I'll take it all back and say "Maybe this is sarcoid," but I doubt it.

I think I'm going to turn it back to Dr. Silva, because then I'm going to start talking about what I really think this is.

Fred Silva, MD

The lung biopsy showed bronchial epithelium, underlying muscle and some lung parenchyma. (Fig 6) The majority of the lung looked normal. The air spaces were intact. There was mild focal alveolar cell hyperplasia. There were a few areas where the interstitial regions of the lung were expanded by edema and chronic inflammatory cells, and possibly had some interstitial fibrosis. This pattern was thought to be nonspecific.

Morris Reichlin, MD

So, what do I think this man has? To me, this multi-system disease with nephritis, fever, and weight loss is strongly suggestive of a chronic infection. Tuberculosis? If tubercle bacilli had been seen in the first examination we would have had the diagnosis, but you don't always find them right away. Anybody who has been in

medicine knows that TB can be a subtle diagnosis, even when it makes the patient very ill. Could this be endocarditis? We hadn't heard about a heart murmur so that makes it less likely, but we know that this whole picture could surely be part of endocarditis. We weren't told about an echo. If the diagnostic test that is going

to give the answer was an echocardiogram which showed vegetations, I'd retreat quickly and say "Ah hah, this is endocarditis." He could have an occult abscess with intermittent sepsis, bacterial or fungal. This would even be missed by the CT scans and all the other investigations that were done. So that's a possibility. HIV infection is a real possibility. Everything this man has could be explained by HIV. This could be syphilis. We don't have a test to rule syphilis in or out, but I doubt whether the pulmonary disease would be due to syphilis. This picture could be produced by chronic hepatitis infection, either B or C, but that is ruled out by the negative tests. So which of these things would I favor?

First, tuberculosis is unlikely since in active pulmonary disease we should have seen acid fast bacilli in the lavage. So on that basis alone, although it doesn't rule it out, I think tuberculosis is unlikely. If we have a positive blood culture, we would have an answer. If we obtained an echocardiogram which showed a vegetation, to me that would be an answer in this case. If mycobacteria finally grew out of the original bone marrow, that would be an answer. If we could demonstrate *Pneumocystis* organisms in the lung or if we had a positive HIV test, that would make a diagnosis in my view. Now, I'm going to commit myself.

I think this patient fits best with HIV infection. We learned today that he had a homosexual orientation, so he has that risk factor. This man has a chronic debilitating disease with anemia, weight loss and fatigue. That's typical of HIV. He had lymphopenia which was progressive. Of course, it would be of interest to know whether he was relatively depleted of CD4 positive cells. A positive ANA without antibodies to double-stranded DNA would be typical of

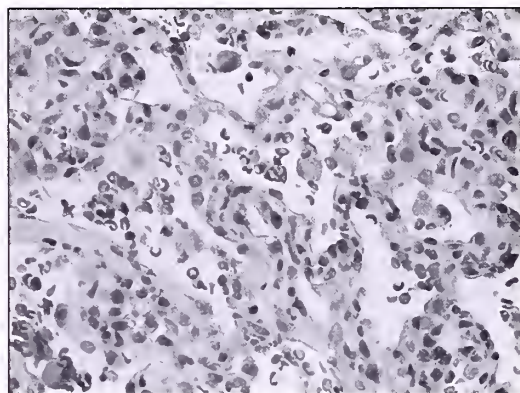


Figure 6: Lung biopsy showing minor nonspecific changes. H&E stain.

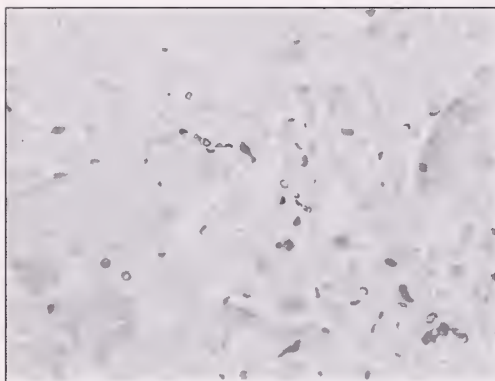


Figure 7: Lung biopsy showing a number of organisms quite suggestive of *Pneumocystis carinii* organisms. Grocott silver stain.

HIV infection. There have been papers written about how similar HIV infection is to lupus, and there have even been people who say "Well, maybe lupus is some kind of retroviral disease." You can see membranous nephropathy with tubular interstitial disease, tubuloreticular inclusions in the endothelial cells, in HIV. So those tubuloreticular inclusions that Dr. Silva

showed you are not specific for anything, but one of the most common situations to see them is in retroviral disease. Polyclonal gammopathy is typical of HIV. He had interstitial lung disease, which was apparently new; if *Pneumocystis* had been found the diagnosis would be almost certain. Could five days of trimethoprim sulfate have cleared the organisms or at least made them difficult to recover in the sputum? Maybe. We don't know. But many other organisms, especially viral, could cause interstitial pneumonia.

I'm going to put my money on HIV, but keep all my options open pending what the real data are that Dr. Silva is going to tell us.

Fred Silva, MD

Invest in silver; that is where the money is in this instance. The silver stain of the lung biopsy wasn't done initially because of the paucity of findings by H&E staining and the lack of a history of anything like HIV. A few days later, though, when we learned about the patient and the possible HIV status, a Grocott silver stain was performed on the lung biopsy. (Fig. 7) Despite the lack of any intra-alveolar foamy macrophages or fibrin that is typical for *Pneumocystis carinii*, there were plenty of organisms present. They are small 4-5 micron, silver-stained, punched-out, ping pong ball-like structures. I really would not have suspected that they were there at all with just the H&E-stained slide. This highlights the importance of communication between the clinician and the pathologist.

Dr. Vivette D'Agati at Columbia Medical School in New York looked at 112 consecutive renal biopsies from HIV patients and only two showed a membranous glomerulonephritis. I

could find at least 10 cases of membranous glomerulonephropathy associated with HIV in the literature. One obviously has to exclude hepatitis B, which frequently is associated with membranous glomerulonephropathy, or hepatitis C, which is more commonly associated with membranoproliferative glomerulonephropathy but can be seen in patients with membranous glomerulonephropathy. From this literature of these 10 patients, one-half of those reported are from New York. One-half were male and one-half were female; several were Caucasian which is different from the African-American tendency in the so-called "HIV-associated nephropathy" (focal sclerosis). These 10 patients with HIV membranous glomerulonephropathy were often biopsied because they had atypical clinical signs. They didn't have the severe proteinuria and renal failure of the typical focal sclerosis of "HIV-associated nephropathy" and they often had hypertension, edema or hematuria. Thus, membranous glomerulonephropathy in HIV is uncommon in most series (about 1%-3% of all HIV biopsies) but does represent about 10 percent of the immune complex diseases in patients with HIV. One of these reported patients with membranous glomerulonephropathy was shown to be extraordinarily responsive to steroids.

The IC deposit in membranous glomerulonephropathy in HIV-positive patients is thought to be an IgG or IgA antibody bound to, or active against, either p24 or gp120, parts of the HIV core or envelope proteins.

Dr. D'Agati, in a recent unpublished review of the literature, has found at least seven patients with HIV positivity that have a lupus-like nephritis and have positive ANAs as you have heard from Dr. Reichlin. The patients can even occasionally have anti-DNA antibodies and a low serum complement. However, only two of those patients had a membranous glomerulonephropathy. In these two cases of membranous glomerulonephritis with HIV, both were small children. So you can't really predict what the renal disease is going to be like even if the patient has lupus-like nephritis. I congratulate Dr. Reichlin on getting the diagnosis.

Question: What is the sensitivity and specificity of the DFA (direct fluorescent antibody) for *Pneumocystis* in this situation?

Dr. Silva: There were very few organisms and they were scattered so a negative is not absolute. The absence of proof is not the proof of absence and a negative value never really

tells you very much. There are some antibodies that can be applied on tissues to demonstrate Pneumocystis, but in general, they haven't been very good on formalin-fixed paraffin-embedded tissues. With the new wave of antigen retrieval and microwave processing, however, these antibodies may become better, but the gold standard is still the Gomori methenamine silver. You can find one organism and be secure in the diagnosis.

Question by Dr. John Harley: I would have thought of CMV. What made you rule out some of the other viruses like herpes and CMV?

Dr. Reichlin: I couldn't, except that one of the things that had an influence on me was again reading Dr. Silva's recent book on renal pathology. Every time I went to look up something like membranous nephropathy, HIV was there. I looked at tubuloreticular structures, HIV was there. Here is a guy with a disease that is consistent with that, and the whole thing was consistent with that. Of course, it could have been CMV.

Question by Dr. Jim Pederson: Could you comment on the frequency of isolated HIV infection with negative serology for hepatitis B and C?

Dr. Silva: I'm not really sure I can do that. When you have a patient with HIV, there are a lot of diseases that can drive the chronic antigenemia. Obviously, one of the most common is hepatitis B and C. As we said, that can be associated with membranous or membranoproliferative glomerulonephritis, respectively. Obviously, they can have toxoplasmosis. Two of the patients in the literature, interestingly enough, with membranous glomerulonephritis and lupus-like syndrome with HIV had toxoplasmosis infection, or at least evidence of it in the past. These patients could have *Treponema pallidum*. They can have a whole series of other infections. Of course, they may also have the confounding variable of IV drug abuse. There are all kinds of antigens that could be related to the immune complex disease.

Question: Are we going to get a follow-up on the patient's therapy?

Dr. Chris Kaufman: The interesting thing is that he has been receiving antiretroviral therapy and is doing well. His ANA became negative after his viral infection was treated and his renal function is normalized.

Question by Dr. David Kem: Just a comment on his course during hospitalization. He came in with a low blood pressure and tachycardia. He was likely volume depleted and had prerenal azotemia. Certainly, one of the things that is being seen now is glucocorticoid resistance during an HIV acute infection and this would then be expected to pass with antiviral therapy. Is there any information that might suggest that he was adrenally insufficient during this hospitalization? The potassium wasn't high, but that's a poor indicator since he had GI loss of potassium.

Dr. Chris Kaufman: Adrenal function wasn't tested. As far as I know, he had no evidence of adrenal insufficiency currently. □

Acknowledgement

The presenters of the CPCs would like to acknowledge Drs. Steve Vogel and Martin Malahy, co-chief residents in the Department of Pathology, for their major assistance in identifying cases to be presented.

The Authors

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Absinthe — Return of the Green Fairy

Joe D. Haines, MD

The fall of communism in Eastern Europe has resulted in dramatic gains in civil rights and liberties. But with the flood of new freedoms, a few evils have slipped in as well. The legalization of absinthe, a toxic liqueur fashionable in Europe at the turn of the century, may well be one of the more insidious evils of the new era.

The December 24, 1996, *Wall Street Journal* reported that a Czech distiller, Radomill Hill, began producing absinthe and selling it in bars in Prague in 1990. The Czech officials were wary of restricting personal liberties in a way reminiscent of the old communist regime. Consequently, they did not block the return of absinthe.

American visitors flooding into Prague have helped make absinthe a favorite drink, as it was for Hemingway, Van Gogh, Oscar Wilde and fin de siècle France. The fans of absinthe praise both its hallucinatory and stimulatory effects. A pale green liqueur, it is extremely bitter to the taste. At 160 proof, it has about twice the alcohol concentration of whiskey. Absinthe has been described as similar in taste to Nyquil and similar in appearance to Scope.

However, the real kick in absinthe is not the alcohol, but one of its principle herbs, wormwood. It is from wormwood that the terpene thujone is obtained, which has been identified as the hallucinogenic compound in absinthe. The effects of wormwood have been reported since antiquity.

Wormwood is a shrub-like perennial herb native to Europe and Asia. It was prescribed by Hippocrates for jaundice, anemia, rheumatism and menstrual pains. Wormwood is mentioned in the Bible twelve times. The Russian translation for wormwood is chernobyl, the name of the city that suffered nuclear meltdown in 1986.

In the Middle Ages, wormwood was used as a popular treatment for flatulence in dogs and

was also known to kill intestinal worms. Wormwood had the reputation as a protection against the plague, and people slept with it in their pillows, hung it from the rafters and burned it as a fumigant.

Modern absinthe was probably invented in 1792 by a French physician, Pierre Ordinaire, who fled to Switzerland during the French Revolution. Dr. Ordinaire settled in Couvet, a small village in western Switzerland.

He discovered the wormwood plant growing wild on his frequent horseback journeys in the countryside. Like many country doctors, he prepared his own remedies and began experimenting with wormwood and other herbs. He eventually produced a 136 proof elixir, which became a popular tonic in the area. The concoction became known as La Fée Verte (the Green Fairy).

Upon Dr. Ordinaire's death, he left his secret recipe, which probably included wormwood, anise, dittany, sweet flag, melissa, coriander, veronica, chamomile, parsley and spinach, to the Henriod sisters of Couvet. The sisters then passed it on to a Frenchman, Major Dubied, in 1797. The Major's daughter married a Swiss fellow named Pernod, who began producing absinthe based on the doctor's recipe. By 1805, Pernod opened a large factory, Pernod Fils, the first distillery of an anise-based liqueur in France.

The distillery got a real boost during the French-Algerian War, when French troops fighting in Algeria from 1844-47 were issued rations of absinthe as a fever preventative. It was also thought to act as health-preserving tonic when mixed with wine and water. The troops quickly acquired a taste for the high-octane drink. When they returned to France after the war they brought their taste for absinthe with them. The popularity of absinthe grew rapidly. The Pernods were soon producing 20,000 liters daily by mid-century.

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Absinthe made its way to North America, probably first appearing in New Orleans in the 1830s. A popular bar at the corner of Bourbon and Bienville Street became known as, "The Old Absinthe House." The history of absinthe in the New World was brief, however, for by 1907 Harper's Weekly reported that the "green Curse of France" was under investigation by the U.S. Department of Agriculture. Five years later, on July 25, 1912, absinthe was banned in America. It has the distinction of being the only alcoholic drink singled out for prohibition.

In 1905, a sensational quadruple murder in Switzerland was blamed on the perpetrator's supposed addiction to absinthe. The publicity of the crime and another absinthe-related murder a few days later incited public opinion against the liqueur. A petition quickly circulated resulting in the Swiss government banning absinthe in 1908. Belgium had outlawed absinthe in 1905 and Holland followed in 1910. But in France, absinthe remained popular up until the First World War. In 1912, the French consumed 221,897,000 liters of absinthe per year.

As early as 1864, scientists began studying the effects of absinthe on health. The initial work was performed by Dr. Valentin Magnan, a physician at the asylum of Sainte-Anne in Paris. Magnan conducted animal experiments and concluded that thujone, the essence of wormwood, was responsible in man for such diverse symptoms as amnesia, violence, epileptic seizures, visual and auditory hallucinations and brain damage.

Thujone was determined to be an isomer of camphor. In 1872 the British medical journal, *The Lancet*, stated that the principle effects of thujone were epileptiform attacks.

Absinthism victims were noted to appear dazed and intellectually enfeebled. Absinthe was said to "evoke new views, different experiences and unique feelings," making it very popular with creative artists like writers and painters. A sensation of heightened perception was reported by some users.

In order to overcome the extremely bitter taste of absinthe, a ritual evolved in which the liqueur was sweetened and diluted. A popular routine involved placing a sugar cube on a slotted spoon which was placed across the top of a glass containing a small amount of absinthe. Cold water was then slowly poured over the sugar cube into the glass. As the clear green liqueur became diluted it was transformed into an opalescent yellow color. Many Parisian bars

and cafes became dedicated to l'heure verte (the green hour) as a daily ritual.

The Dutch painter Vincent van Gogh was a known devotee of absinthe. During the last two years of his life (before he committed suicide in 1890), van Gogh experienced fits with hallucinations that have been historically attributed to congenital psychosis. However, he was a well-known heavy drinker and evidence shows that he was probably addicted to absinthe.

Van Gogh's letters and the observations of his friends indicate that he had an affinity for substances chemically related to thujone. His use of camphor for insomnia and at least one known attempt to drink turpentine (which contains the terpene pinene) are examples of a craving for terpenes chemically related to thujone. Some have suggested this craving for terpenes was a variant of pica, explaining such bizarre behavior as eating his paints.

Today La Fée Verte appears to be making a modest comeback. But absinthe has never really died out—it merely went underground. Clandestine Swiss distillers still produce thousands of gallons of bootlegged absinthe for local consumption. Absinthe never became illegal in Spain, which has been the only country where it is openly sold until the recent addition of the Czech Republic.

The revival of absinthe use in Prague may merely represent experimentalism and faddism by many partakers. Many probably recall literary descriptions of the revelatory effects of absinthe, like Hemingway's hero in *For Whom the Bell Tolls*. "One cap of it took the place of the evening papers, of all the old evenings in the cafes, of all the chestnut trees that would be in bloom now this month."

Perhaps the fascination with absinthe is but a passing fancy. In today's drug-ridden society, absinthe's potential for havoc is very great. The double threat of 160 proof alcohol and a hallucinogenic makes the green fairy a devil in disguise.

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The Author

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Health Care Fraud and Abuse

AMA Board of Trustees Report, Reference Committee B

Current Environment

Congress and President Clinton are demanding tougher action on fraud and abuse in response to perceptions that the problem is greater than previously indicated. The Inspector General of the U.S. Department of Health and Human Services (HHS IG) released an audit in July, 1997, suggesting that fraud and abuse in the Medicare program totals \$23 billion a year or 14 percent of the traditional Medicare program. The IG audit substantially stretched the definition of fraud and abuse. Physician claims which were not fully documented and initial medical necessity denials that are frequently overturned on appeal (up to 70 percent are reversed) were labeled as "evidence" of fraud and abuse. The Board of Trustees has expressed strong concerns that fraud and abuse estimates should be confined to proven cases of fraudulent acts which are inconsistent with accepted medical practices.

The Kassebaum Kennedy legislation enacted in 1996 allows the HHS IG to retain a percentage of dollars recovered to fund future anti-fraud activities. The budget and staffing level of the HHS IG are both projected to double by the year 2002 as a result of this funding mechanism.

Record recoveries and reports of widespread abuse also increased pressure to expand federal anti-fraud efforts. A \$30 million settlement agreement with the University of Pennsylvania sparked a nationwide audit of teaching hospitals. High levels of fraud and abuse in the Medicare home health benefit led President Clinton to impose a moratorium on certifying new home health agencies.

Perceptions regarding the extent of fraud and abuse can be a barrier to overdue reforms in federal programs. Surveys of senior citizens indicate that some beneficiaries mistakenly believe that Medicare financing problems can be "solved" by eliminating fraud and abuse. The American Association of Retired Persons cited fraud and abuse concerns as a major basis for opposing the Kyl legislation to allow physicians to privately contract with Medicare patients.

AMA Advocacy

Our AMA has continued to advocate a zero tolerance policy for acts of intentional misconduct to obtain unauthorized benefits. Upon request, AMA representatives have provided federal officials with information on accepted medical practices. As noted earlier, our AMA has expressed concerns with overly broad definitions of fraud and abuse that confuse inadvertent errors and lack of documentation with intentional misconduct. In keeping with traditional standards of American justice, our AMA has advocated that prosecutors prove fraudulent intent. Our AMA has defeated repeated attempts by the Department of Justice and HHS IG to lower the current knowing and willful standard for fraud prosecutions.

Physicians at Teaching Hospitals (PATH) Litigation

On October 29, 1997, our American Medical Association and the Association of American Medical Colleges filed a lawsuit in the U.S. District Court for the Central District of California against the federal government to end the retroactively applied standards of the Physicians at Teaching Hospital (PATH) audits. The suit addresses a range of issues with the audits, including the underlying presumption that billing errors uncovered by the investigations are fraudulent. Our AMA and the AAMC are joined in the complaint against the U.S. government by specialty societies, other associations and academic organizations that represent medical schools, faculty physicians, teaching hospitals and group practices. The filing of the lawsuit followed lengthy discussions with the federal government, where our AMA and the AAMC strenuously urged Secretary Shalala to change the audit protocols of PATH. The lawsuit was filed when these discussions failed to resolve many points of disagreement surrounding the audits.

Federal False Claims Act

Increasingly, federal law enforcement officials have used the False Claims Act to obtain settlements or judgments in alleged cases of health care fraud. The False Claims Act can easily trigger potential payments of millions of dollars because the law provides for treble damages and mandatory fines of \$5,000 to \$10,000 per claim. In addition, prosecutors do not have to prove specific intent to defraud federal programs. As a result of concerns about the coercive features and potential misuse of the False Claims Act, a coalition of health organizations, including the AMA, is exploring possible restrictions on the use of the False Claims Act in the health care arena.

Federal Fraud Enforcement and Compliance

The existence of an effective compliance plan provides evidence that mistakes were inadvertent, and this evidence could be considered by the federal government in determining whether reasonable efforts have been taken to avoid and detect fraud and other misbehavior. A compliance plan also will detect under-coding and improve communications within a practice setting. An effective compliance plan should include the following seven elements:

1. **A clear commitment to compliance.** A compliance plan must ensure that everyone in the organization understands the obligation to comply with established and understood standards, and that the organization will take actions to uphold those standards.
2. **Appointment of a trustworthy compliance officer with high level of responsibility.** The compliance officer will be considered to have the requisite authority if he or she is able to influence behavior and organizational practices.
3. **Effective training and education programs.** There must be a routine training and education process that addresses the role of everyone involved in the organization and makes participation in the compliance program understandable.
4. **Auditing and monitoring.** There must be a regular review of the organization's claim development and submission process from the point where a service for a patient is initiated to the submission of a claim for payment. The monitoring process includes a methodology to facili-

tate employee reporting of suspected situations of fraud or abuse.

5. **Communications.** Organizations must maintain an effective communications process, including a process to facilitate reporting of suspected violations.
6. **Internal investigation and enforcement.** Organizations must be able to conduct an appropriate investigation and take disciplinary actions.
7. **Response to identified offenses and application of corrective action initiatives.** On the identification of a compliance problem, organizations have a responsibility to take demonstrable corrective actions, including steps to prevent further similar offenses.

Documentation is a central component of an effective compliance plan. Documentation must be maintained on the operation of the compliance plan. Medical record information provides the justification necessary to support claims payment.

Recommendation

The board of Trustees recommends that the following be adopted and the remainder of this report be filed:

1. That our AMA leadership intensify efforts to urge federal policymakers to apply traditional definitions of fraud and abuse which focus on intentional acts of misconduct and activities inconsistent with accepted medical practice.
2. That our AMA continue to work with federal law enforcement officials to improve the ability to root out intentional schemes to defraud public programs.
3. That our AMA work with federal policymakers to balance payment integrity objectives with reasonable documentation and other administrative requirements.
4. That our AMA develop model compliance plans and educational materials to assist physicians in conforming to the latest laws and regulations.
5. That our AMA continue to work in a coalition of other health organizations to lobby for restrictions on the use of the False Claims Act.

LETTERS TO THE EDITOR

To the Editor:

Thank you for your editorial on herbal healers. I think it contained some good points, however I do not have the confidence you have in the "skills of the modern chemist and pharmacologist." I suppose we are all guilty of arrogance when it comes to looking at more primitive cultures, although much of our "modern pharmacology" has its roots in antiquity. I have no doubt that a thousand years from now "modern medicine" will look back on our technology as primitive and our therapies as crude and barbaric. But hey, we're doing the best we can, just like those medieval morons thought they were.

The longer I practice medicine, the fewer drugs I try to prescribe. I do not enjoy dealing with adverse reactions and drug interactions. Every year we have medications that are supposedly exhaustively analyzed by the FDA that are withdrawn because they are killing people. Don't get me wrong, I'm all for scientific testing before recommending anything. But I'm willing to bet that FDA-approved drugs have killed far more patients than herbs have. (They've also saved more lives as well.) Don't forget that the FDA is a government agency like the post office. Kind of scary when you think about it. Reminds me of that old oxymoron, "I'm from the government and I'm here to help." Or Will Rogers' famous line, "This country runs in spite of government, not by aid of it."

I do not believe that most patients seek to substitute herbs for scientifically accepted therapy in serious illnesses, except for a minority of desperate cases. Most folks use herbs as supplements. Physicians should at least familiarize themselves with this multi-billion dollar industry so we can make intelligent recommendations. People are going to use herbs regardless of what physicians advise anyway.

I'm reminded of an example from my medical student days, when the ivory tower professors derided the "ignorant" G.P.s for giving B-12 injections. The professors thought that unless a patient had pernicious anemia, giving B-12 was tantamount to quackery. But the G.P.s knew better. They saw many patients, particularly the elderly, who benefited from B-12. Now B-12 is accepted therapy for a variety of neuralgic and medical conditions.

Where physicians have the advantage over the general public is in cutting through the slick advertising to steer patients away from harmful products. But taking a stance against all herbal preparations will just drive people to those practicing "alternative medicine." For years the official position of sports medicine organizations was that steroids did not enhance muscle development. Evidently the strategy was to lie to the athletes in order to prevent them from using harmful drugs. But the athletes knew that steroids worked. The result was that many professionals in the main stream lost their credibility and athletes sought advice elsewhere.

If physicians will take the time to familiarize themselves with herbal supplements they can do their patients a great service by warning them away from harmful preparations. Refusing to consider anything other than "scientifically evaluated" drugs will drive many patients to other, often less reliable sources.

Joe D. Haines, Jr., MD
Stillwater

To the Editor:

My mother, Helen Estephan, spent the last three years of her life at Riverside Nursing Home in Jenks, Oklahoma. During this period of time there was a high rate of staff turnover. What I noticed, though, is that most of the nursing staff did its best in trying to take care of their patients. Most of the staff treated the patients well, and when I reported one of the nurses in charge for shouting at a patient, I no longer saw her at the nursing home. I actually think she was fired.

What was really lacking was recognition of symptoms of physical illness and knowledge of what to report to physicians. There was also ignorance about effective treatment for Alzheimer's disease. I routinely visited my mother about three times a week. However, at one time I was out of town and my mother became ill. She did not eat or drink for one week. An ambulance was called and my mother was taken to an emergency room. She was admitted and treated for dehydration and a urinary tract infection. If her doctors had received a report that my mother was not eating or drinking for several days or if they had checked on her more often, her admission and the misery of severe dehydration in an 88-year-old woman would have been averted.

My mother was very handicapped by her Alzheimer's disease as well as severe osteoporosis. She was very restless because of these ailments. My mother actually climbed out of her bed and sustained two significant falls because of this. It was very difficult to get my mother's doctors (Dr. W. and Dr. K.) to give her any sedation. I finally talked with Dr. Dubriny, a psychiatrist, who told me what medications to place her on and Dr. W. approved them. This helped her tremendously for a while.

Toward the end of my mother's life, when she became really restless again, getting a sedation order was next to impossible. After several requests to the nurses that they obtain sedation for her, she was finally given a small dose of a sedative (ativan 0.5mg). This one dose helped her for a few days. The staff then complained to me that my mother was undressing in public. She was so restless then. They had no idea that sedation would have helped her and prevented this. In the last two days of her life my mother again stopped eating and drinking. I asked the nursing staff to call her doctor and ask for a urine test as urinary tract infection was a common cause of illness for her. Her doctor (Dr. S. covering for Dr. W.) responded by saying that this was Saturday and they had to wait until Monday. That same afternoon my mother developed a high fever and slipped into a coma. Dr. S. then ordered IM antibiotics and a urine test. My mother's blood pressure started dropping. On Monday morning at 8 a.m. while I was at the nursing home, the day nurse coming to relieve the night shift wondered why my mother's blood pressure was dropping and had no idea what was going on. Obviously there was a lack of communication between the day and the night staff.

I am asking the AMA and OSMA to pay more attention to the care that our elderly patients are receiving. Physicians and nursing staff need to be better educated about care of elderly patients and treatment of Alzheimer's disease, for the benefit and comfort of the elderly. Sedation is inexpensive and it is unlikely that the helpless elderly will become addicted to it, and it must be more widely used in cases similar to my mother's. The last few months of my mother's life were far from restful. She was very helpless and I felt powerless to help her. Swift attention to this matter is urgently needed.

Mona S. Mange, MD
Tulsa



"Being a patient advocate is what being a physician is all about."

Dr. Kevin Fullin, Cardiologist, Kenosha, Wisconsin, Member, American Medical Association

Why would a cardiologist get involved in the issue of family violence? Perhaps, because what he saw simply cried out for action.

"Fully a third of all women's injuries coming into our emergency rooms are no accident," says Dr. Fullin.

While others were content to downplay the issue of family violence, Dr. Fullin would not. He petitioned state officials, and through his efforts the first Domestic Violence Advocate Program in his state was created.

"Organized medicine must serve as an advocate for patients," stressed Dr. Fullin.

The American Medical Association (AMA) couldn't

agree more. We're committed to focusing physician attention on the issue of family violence.

You are invited to join Dr. Fullin and to join with him in his efforts to bring quality health care to those in need. Become a member of the American Medical Association today.

Members of the AMA are encouraged to join their state, county and specialty societies.

American Medical Association

Physicians dedicated to the health of America

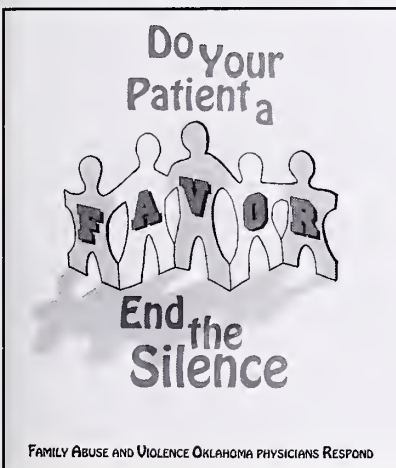


Physicians Take a Stand Against Domestic Violence

According to the Oklahoma State Bureau of Investigation's *Crime in Oklahoma: 1997 Uniform Crime Report*, domestic violence has been on the rise since 1988, the first year in which such data was collected. At that time, 11,961 reports were collected; by 1997, that number had increased to 23,087.

Additionally, OSMA's *Do Your Patient a Favor—End the Silence* handbook states that battering is the major cause of injury to women, resulting in more injuries to women than auto accidents, muggings and rapes combined. Nearly one-quarter of the women in the United States have been or will be abused by a current or former partner at one time during her life...and the American Medical Association has recognized that violent men are the number one health risk among healthy women in America today.

Excerpts from OSMA's *Do Your Patient a Favor — End the Silence* booklet were used in developing this feature section. It was produced as part of the Oklahoma Physician's Domestic and Sexual Violence Prevention Project.



The Oklahoma State Medical Association, in an effort to lessen the toll of domestic and sexual violence in Oklahoma, is asking all of its members to:

1. Assume that at least a portion of your patients are experiencing partner or spouse abuse and act accordingly.
2. Routinely ask your women patients, either as part of medical history taking, as part of the physical exam, or when an injury suggests abuse, if they are experiencing abuse from a partner or spouse.
3. If the patient indicates she is being abused, take the time to talk with her about her options. Give her the name and telephone number of her local shelter or the services available in her community.
4. Document the patient's injury thoroughly. Not all abusive situations end up in court, but accurate, well-documented medical records are a big advantage if they do.
5. Don't get angry or upset with a patient if she denies what is obviously abuse or if she fails to follow-up on your advice. Nationally, 75 percent of battered women first identified in a medical setting will go on to suffer repeated abuse. Just remember to remain supportive and hope that the next time she will take your advice.

The Cycle of Violence

In examining domestic violence, a cycle of three distinct phases has been identified:

- Phase One:** Tension begins to increase, anger rises, and there is blaming and arguing between the abuser and the victim.
- Phase Two:** In this phase, the battering occurs. It can include sexual abuse, verbal threats, or the use of objects or weapons.
- Phase Three:** The batterer may deny the violence, make excuses for his or her behavior, apologize, and promise not to do it again. This phase is also called the "Honeymoon" phase.

The best opportunity for a physician to intervene is in phase one or two.



Characteristics of Abuser:

possessive — jealous
low impulse control
substance abuse
rigid role expectations
controlling — dictatorial

Stress Factors:

isolation — pregnancy
economics
alcohol/drugs
death — role change
change in family structure
sexual disfunction
medical problem

Diagnosis and Clinical Findings

Before identifying the physical signs, it is important to understand the definition of domestic violence. Oklahoma law defines domestic abuse as "any act of physical harm, or the threat of imminent physical harm which is committed by an adult, emancipated minor, or minor age sixteen (16) or seventeen (17) years against another adult, emancipated minor or minor child who are family or household members" (O.S. Section 60.1). Domestic violence may be physical, emotional or psychological, or sexual in nature, and may be directed against children or adults.

Routine screening of patients can serve to identify individuals who are currently being abused. Since some individuals may not initially recognize themselves as "battered," the physician should routinely ask all women direct, specific questions about abuse. The patient should be interviewed alone, without the partner present. Routine questions about violence not only identify women who are currently being abused, but also serve to assess the safety of women who have been battered in the past and to heighten the awareness of those who have not been in an abusive situation.

The first concern should be the safety of the woman and her children. It is imperative that the physician inquire about a battered woman's safety before she leaves the medical setting.

Here are some examples of recommended questions:

- Are you in a relationship in which you have been physically hurt or threatened by your partner? Have you ever been in such a relationship?
- Are you (have you ever been) in a relationship in which you felt you were treated badly? In what ways?
- Has your partner ever threatened or abused your children?
- Has your partner ever forced you to have sex when you didn't want to? Does he ever force you to engage in sex that makes you feel uncomfortable?
- Do you ever feel afraid of your partner?
- Has your partner ever destroyed things that you cared about?
- We all disagree at home. What happens when you and your partner disagree?
- Has your partner ever prevented you from leaving the house, seeing friends, getting a job, or continuing your education?
- You mentioned that your partner uses drugs/alcohol. How does he act when he is drinking or on drugs? Is he ever verbally or physically abusive?
- Do you have guns in your home? Has your partner ever threatened to use them when he was angry?

Once abuse is recognized, a number of interventions are possible, but even if a woman is not ready to leave the relationship or take other action, the physician's recognition and validation of her situation is important. It helps confirm the seriousness of this situation and the need to resolve it.

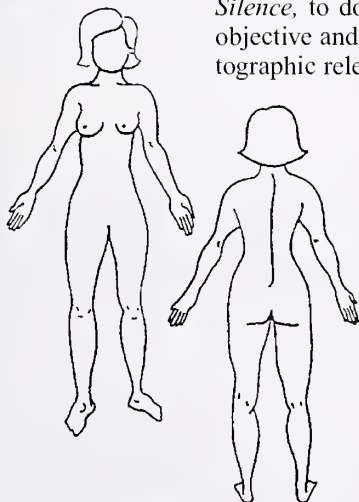
It is important to evaluate the existence of psychiatric and/or substance abuse problems which may co-exist with the violence. Guidelines for assessing abuse and violence have been developed by the Oklahoma State Department of Health, Maternal and Child Health Service, and are featured in the OSMA publication, *Do Your Patient a Favor—End the Silence*.

If an individual's physical injuries are not consistent with the explanation of how he/she received those injuries, or if there has been a delay in seeking medical attention for an injury, it is possible that the injuries were received during an assault. Physical injuries that are common in cases of abuse or physical assault include:

- Contusions, abrasions and minor lacerations, as well as fractures or sprains;
- Injuries to the head, neck, chest, breasts and abdomen;
- Injuries during pregnancy (especially to the breasts or abdomen);
- Numerous injuries at multiple sites (unless the patient has been involved in an auto accident or other catastrophe);
- Repeated or chronic injuries;
- Concussions or peripheral nerve damage (attention neurologists);
- Bruising and/or fractures in orbital area (attention ophthalmologists);
- Retinal detachment (attention ophthalmologists);
- Fractures of arms, ribs, hands, nose and jaws;
- Rupture of tympanic membranes (attention otolaryngologists);
- Hematuria of unknown origin (attention urologists);
- Symptoms with no physiologic origin;
- Buccal mucosa or tongue lacerations (attention oral surgeons);
- Broken or avulsed teeth (attention dentists).

Helping the Patient

Injury Map



Document Well

Use an injury map (such as the map found in the handbook *Do Your Patient a Favor—End the Silence*, to document injuries. Dictate or write a detailed history and physical, including both objective and subjective data. Photograph obvious injuries, but have the patient first sign a photographic release form.

Intervention/Referral

If you know of or suspect abuse against a child, elderly person or incapacitated adult, Oklahoma state statutes require that you report that abuse. Oklahoma does not have a specific statute requiring the reporting of domestic violence; however, there is a requirement that health professionals must report suspected crimes of violence.

To Whom Do You Report

Report to the police in the county where the abuse was alleged to have occurred; the domestic abuse team of the District Attorney's office; any county law enforcement official or call the state-wide Domestic Violence and Sexual Assault Safeline toll free number, 1-800-522-7233 or the Oklahoma Child Abuse Hotline at 1-800-522-3511.

Medical Malpractice/Liability

As is true in other medical situations, it is conceivable that even if a physician has taken all measures to handle these cases correctly, he or she could be sued. Reference the *Do Your Patients a Favor — End the Silence* booklet or contact your insurance provider for ways you can protect yourself while providing care for your patient.

EMERGENCY NUMBERS

Oklahoma Safeline
24-Hour Domestic Violence
and Rape Hotline
800/522-7233

National Domestic Violence
Hotline
800/799-SAFE (7233)
800/787-3224 (TDD)

Resource Centers

Oklahoma Coalition Against
Domestic Violence and
Sexual Assault, State Office
2200 Classen Blvd., Ste. 610,
OKC, OK 73106
405/557-1210

Domestic Violence and Sexual
Assault Program Division
PO Box 53277
OKC, OK 73152
405/522-3856

Oklahoma Department of
Mental Health and Substance
Abuse Services
Prevention Resource Center
405/522-3809

Oklahoma Coalition Against
Domestic Violence and
Sexual Assault, Northeast
Educational Services
RR 2 Box 438
Wagoner, OK 74467
918/485-6145

Be Prepared

Keep Information on Domestic Violence in Your Office

When a patient needs help, the physician should have resources readily accessible. The OSMA's *Do Your Patient a Favor - End the Silence* booklet is designed to be a resource guide for physicians while treating patients who may be a victim of domestic violence. Call the OSMA to request a booklet, 405/843-9571.

Children and Firearms: The Link to Domestic Violence

The American Academy of Pediatrics Says...

The presence of a firearm in the home is considered by some to be a necessity in maintaining the safety and security of its residents. However, the American Academy of Pediatrics has taken a position against this practice, arguing that the presence of a gun in the home may lead to incidences of suicide, homicide or unintentional shooting among children and adolescents, and increases the likelihood that such incidences will occur.¹

The AAP reports:

- The presence of guns in homes results in 9 million adolescents having access to a firearm in their own home.
- A gun in the home is 43 times more likely to be used against a family member or friend than to be used to kill an intruder.
- Half of all US homes (25 million households), have handguns.
- Forty-eight percent of adolescent boys report owning a gun; the average age of acquisition for a gun was 12.5 years, and most received the guns as a gift from an older male relative.

Prevention

While a firearm injury requires medical care and treatment, the prevention of firearm injuries is more likely to save lives. In a joint report by the American Academy of Pediatrics and the Center to Prevent Handgun Violence, statistics reveal that 92 percent of suicide attempts made with guns are successful; the rate of gun-related homicides is rising more

quickly than other kinds of gunshot fatalities; and firearm discharges were fifth among the leading causes of unintentional injury death in 1991. The AAP and Center to Prevent Handgun Violence recommend physicians discuss the presence of guns in the home as an injury-prevention issue, remain non-judgmental about gun ownership, but still advocate child health and warn of the dangers of guns in a home.

Discuss the presence of guns in the home as an injury-prevention issue. Remain non-judgmental about gun ownership, but still advocate child health and warn of the dangers of guns in a home.

Awareness

In addition, awareness of risk factors that lead to violent behavior can be an important step in prevention. Children are learning to use violence to deal with anger and conflict. The presence of a gun, combined with violent coping behaviors, can lead to incidences of injury or death among youth. Violent behaviors or associated risk factors, such as weapon carrying, depression, bullying, or withdrawal from peer groups can be indicators. Additionally, individuals who have been victimized by child abuse and neglect or have witnessed violence are also at risk.

Resources for Prevention

Resources available to physicians regarding the prevention of firearm injury prevention may be obtained from the American Academy of Pediatrics. Included on their website (www.aap.org) are policy statements regarding firearms, a model bill for the Protection of Children from Handguns Act, information and publications available that physicians can share with their patients, and a Firearms Injury Prevention Resource Guide. Additionally, the AAP encourages its chapters to become members of HELP, the Handgun Epidemic Lowering Plan Network. This network responds to handgun-related injuries and deaths as a public health crisis, disseminating information to assist in initiative- and policy-making to combat the growing trend in handgun violence.

1. Pediatrics, Policy Statement: Firearms and Adolescents, April 1992, pp.784-787.



OU Medical Students Achieve Near-Perfect Pass Rate on National Licensure Exam

Third-year medical students at the University of Oklahoma have achieved a near-perfect pass rate of 99 percent on the first stage of the U.S. Medical Licensing Examination. The first stage of the USMLE is considered to be the most difficult stage of the three-part examination. The exam is the only pathway for licensure to practice medicine in the United States. Jerry Vannatta, MD, executive dean of the OU College of Medicine, credits the high pass rate to rising academic standards in the college and to the caliber of its students and faculty. "These results reinforce the idea that, when excellence is expected and articulated, performance tends to rise to expected levels," Dr. Vannatta said. Students take the first stage of the USMLE after the first two years of medical school, during which time studies are dedicated to the basic sciences. The National Board of Medical Examiners administers the USMLE.

R. Stanley Baker, MD, Receives Award

R. Stanley Baker, MD, of Oklahoma City, is one of only 53 ear, nose, and throat specialists across the country to receive this year's American Academy of Otolaryngology-Head and Neck Surgery's prestigious Honor Award. The award, which has been bestowed since 1934, was presented at the Opening Ceremony of the Academy's Annual Meeting, held in September in San Antonio, Texas. Of the 53 recipients this year, Dr. Baker is the only physician from Oklahoma.

The American Academy of Otolaryngology-Head and Neck Surgery is a national medical organization of 10,100 physicians who specialize in the medical and surgical treatment of the ears, nose, throat, and related structures of the head and neck. Its function is to advance the science and art of medicine related to otolaryngology and to represent the specialty in governmental and socioeconomic issues.

Studies Highlight Potential Risks of Certain Over-the-Counter Drugs

New preliminary research presented at the World Congress of Gastroenterology revealed a potential risk of serious gastro-intestinal (GI) side effects with over-the-counter (OTC) non-steroidal anti-inflammatory drugs. The study indicated that GI bleeding can occur from even low doses present in over-the-counter preparations. Patients who took OTC doses of NSAIDs were nearly four times more likely to suffer from GI bleeding or hospitalization than those taking no drug. Study physician Gurkirpal Singh, MD, reported that, "While the risk with OTC NSAIDs is lower than that seen with prescription doses, this is the first time this risk has been seen with the lower OTC doses which are freely available to consumers."

Children Encouraged to Learn About Medicines

Healthcare providers should educate not only adults, but also their young patients about the medicines they are taking, according to U.S. Pharmacopeia (USP), a group that develops drug standards and authoritative information.

USP says that children need to be informed at two levels: first, children should be taught how medicines work and be given answers to any questions they have; second, they should be taught key behaviors related to the use of medicines.

Physicians can initiate and facilitate the learning process, but this process must also be continued by the parent or caregiver of the child. Children should be taught to:

- * Take the right medicine, at the right time, in the right amount. The physician or an adult (parent, caregiver) should read the directions with children.
- * Take all of the medicine prescribed even if they feel better. This is especially important when taking antibiotics.
- * Report any unexpected side effects or reactions to an adult who can call a health care professional.
- * Participate in health education activities that teach principles of responsible medicine use.
- * Tell an adult if a medicine poisoning is suspected so the local poison center can be notified as soon as possible.

USP was established in 1820 as a not-for-profit, private organization that sets legally recognized standards of identity, quality, strength, purity, packaging, and labeling of medicines and other health care technologies. The group of more than 1,500 volunteers also develops authoritative information for appropriate uses of these products.

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All manuscripts should approximate the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state the exact question considered, the key points of methodology and success of execution, the key finding, and the conclusions directly supported by these findings.

Bylines may contain no more than six (6) names and shall include only those individuals who can attest that they have contributed to the conception and design, or analysis and interpretation of data; and to drafting the article or revising it critically for important intellectual content; and to final approval of the version to be published. Other contributions may be recognized in an acknowledgment.

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DEATHS

✱
Paul L. Masters, MD
1925 - 1998

Paul L. Masters, MD, died August 6, 1998. He was born in Tulsa in 1925 and served in the Army Air Corps during World War II as a B-24 bomber navigator. Following his military service, Masters earned a medical degree from the University of Oklahoma School of Medicine in 1953. He served as both Chief of Staff and Chief of Surgery during his time at Midwest City Memorial Hospital, where he was a charter member. Masters had been a member of the OSMA since 1955 and was a member of the AMA.

✱
James M. Behrman, MD
1917 - 1998

James M. Behrman, MD, died June 5, 1998. He was born in Waco, Texas in 1917, and earned his medical degree from Southwestern Medical College in Dallas in 1944, later serving in Germany during the Occupation as a United States Army physician. Following his military service, he was chief psychiatrist for the Veterans Administration Clinic in Oklahoma City, and served at Griffin Memorial Hospital in Norman before entering private practice. During his career, Behrman was president of the Oklahoma district branch of the American Psychiatric Association and served as chair of the Oklahoma Coalition for Health Security. He was a member of OSMA, which he joined in 1954, and became a life member in 1991.

IN MEMORIAM

1997

John Douglas Hesson, MD	October 18
Dorothy Rose Danna, MD	November 7
Marcus Lafayette Cox, MD	November 11
Curtis Bert Cunningham, MD	November 16
David Eugene Livingston, MD	November 21
Fred Thomas Fox, MD	December 6
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Byron Fremont Smith, MD	February 21
Emil Maurice Childers, MD	February 22
Burton Bonnard McDougal, MD	February 23
Robert T. "Tom" Cronk, MD	April 15
Jack Paul Enos, MD	April 19
Paul Arthur Barnett, MD	April 28
Allen B. Eddington, MD	May 20
William H. Reiff, MD, FACS	May 25
Jerry L. Puls, MD	June 5
James M. Behrman, MD	June 5
Charles N. Talley, MD	June 14
Thomas C. Points, MD, PhD	June 15
Charles M. Cameron, Jr., MD	June 22
Philip G. Tullius, MD	July 4
Louis H. Charney, MD	July 8
Ralph L. Walker, DO	July 11
Brook S. Bowles, MD	July 20
Paul L. Masters, MD	August 6

✱
Louis H. Charney, MD
1902 - 1998

Louis H. Charney, MD, died July 8, 1998, at the age of 94. He received his medical degree from the University of Oklahoma in 1928 and began practicing in 1929. In 1943, Charney enlisted in the Army and served as Chief of Staff in Ireland and France, serving until leaving in 1947 with the rank of Lt. Colonel. He was a Fellow of the American College of Physicians, American College of Cardiology, and American College of Chest Physicians, and was Professor Emeritus of the OU School of Medicine and Doctor Emeritus of St. Anthony Hospital. Charney was a life member of the Oklahoma County Medical Society, OSMA, and the AMA.

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Alliance Remembers Forgotten Youth

I am really excited about this year's state project. We will be filling care packages for foster youth who are either starting or attending college. I have previously been involved in this project and hold it near and dear to my heart.

Citizens Caring For Children, a non-profit agency located in Edmond, is dedicated to serving foster children throughout Oklahoma. They invest in children who have been abused or neglected and removed from their homes. Their mission is ongoing and challenging: to break the cycle of abuse and neglect by anticipating and meeting young people's physical, emotional and spiritual needs. The agency empowers foster children to build lives that will bring them wholeness and that will allow them to make a contribution to the world around them. Through compassionate intervention, they strive to change the future of foster children, both for the present generation and all generations that follow.

In Oklahoma, foster care youth are out of state custody and completely on their own at age 18. Showing these youth that someone cares can make a difference in their lives. With little expense, we can fill 12" x 6" x 6" boxes with school supplies, snacks, instant foods, odds and ends, personal care items, stuffed animals and personal notes of encouragement.

I have witnessed these youths' joy upon receiving an unexpected kindness. President Diane Cooke and President-Elect Cheryl Baker will be bringing boxes to your counties. A prototype box will be delivered, showing you how the items are packaged and how creative you can get. The package can be unisex or for either a young man or woman. I buy and pack these boxes with my sons. They really get into it! Remember, when you fill a care package, you are filling a heart with love and warmth. The Oklahoma State Medical Association Alliance remembers the forgotten Youth!

This month also brings increased awareness to the issue of family violence. The AMAA's campaign, SAVE (Stop America's Violence Everywhere), meshes nicely with the foster care project. Physicians' spouses from all over the country are involved in efforts to end violence in America and help victims of abuse reclaim their lives. The climax of the year-round SAVE Program is SAVE Day, October 14.

Julie Ringhofer, AMAA Health Promotion Chair, informed me that the AMA is giving the Alliance 10,000 Shelter Kits to be distributed to local shelters. The kits contain such items as scissors, gauze, bandages, etc. Chapters may deliver them on SAVE Day. All interested County Alliances can call the AMAA at 312/464-4470 for these special kits.



Mary Ellen Tallerico
Health Promotions

"Remember,
when you fill a
care package,
you are filling a
heart with love
and warmth."

THE LAST WORD

National Leadership

Another example of an Oklahoman providing leadership on the national level can be found in Lynn Drake, MD, who is currently serving as president of the American Academy of Dermatology. Dr. Drake also serves as chair and professor of the Department of Dermatology at the University of Oklahoma, and serves as editor of the dermatology specialty newsletter, *Rosacea Review*.

TCMS Scholarships Announced

The Tulsa County Medical Society has awarded 45 education awards through its Scholarship Fund Trust. In total, more than \$45,000 was granted for the 1998-1999 school year. All recipients of the awards are residents of Tulsa County, and 44 of the 45 students attend the University of Oklahoma College of Medicine in Tulsa or Oklahoma City.

Physician Goes On Record

In response to concerns that children who use inhaled steroids will suffer from stunted growth, Dr. Warren V. Filley of the Oklahoma Allergy and Asthma Clinic said the effects are minimal. "The studies showed that use of inhaled steroids did reduce growth by an average of less than half a centimeter over the life of a child," said Dr. Filley. "About 2.5 centimeters equal one inch, and so frankly, this is not an effect that's going to make or break a basketball player or even an average-sized person."

The article ran in *The Daily Oklahoman* on August 15, 1998, and discussed the debate over whether or not the drugs used as allergy and asthma treatments will have long-term effects on growth. Long-term research on the lasting effects is not currently available; however, as Dr. Filley pointed out, "We have used these inhaled steroids for years and found that these drugs have saved patients' lives and kept people out of the hospital."

HMOs Fare Poorly on the Stock Market

Second quarter reports for many HMOs are showing losses or profits lower than expected. Managed care companies have experienced this downward trend for three years, despite the contrary bull market situation during that time. Included in that list of poor performers were New York's Oxford Health, which fell from \$80 in July 1997, to \$6.72 in August 1998. Aetna stock, predicted to reach \$100, closed in mid-August at \$67.69. Industry analysts blame the poor performance on increasing health costs as well as Medicare reimbursement which is squeezing HMOs' bottom lines. (*Philadelphia Inquirer*, August 19, 1998)

Alternative Medicine Courses Offered

A 1997 survey to 125 U.S. medical schools, conducted by Miriam S. Wetzel, PhD, and colleagues at the Harvard Medical School in Boston, found that several medical schools in the United States now offer courses that include alternative medical topics such as acupuncture, chiropractic, and herbal therapies.

Yielding a 94 percent return rate, the study found that 64 percent of the 117 responding schools offer elective courses in complementary or alternative medicine, or include these topics in required courses. Findings also indicate that, of 123 courses reported in the study, 84 were stand-alone electives, 38 were part of required courses, and one was an elective. In addition, 38 courses were offered by departments of family practice and 14 by departments of medicine or internal medicine.

AMA Supports FDA Commissioner Nominee

The AMA has announced its support for Jane E. Henney, MD, as nominee for Commissioner of the Food and Drug Administration. Dr. Henney currently serves as the Vice President for Health Services at the University of New Mexico, and served as the Deputy Commissioner for Operation at the FDA from 1992-1994. The AMA believes that Dr. Henney's abilities are a perfect match for the responsibilities of the position, and advocates her nomination.

Medical Management Company Declares Bankruptcy

FPA Medical Management Company, the country's third largest physician management company, has declared Chapter 11 bankruptcy. The company includes a network of 7,900 physicians in 29 different states. Physicians who sold their practices to FPA for stock in the company have been hardest hit financially; in addition, physicians in several states are owed millions of dollars by FPA for their services. The AMA, California Medical Association, and Texas Medical Association are all looking into this matter. (*Modern Healthcare*, July 27, 1998)

"Science proceeds by successive answers to questions more and more subtle, coming nearer and nearer to the very essence of phenomena."

Louis Pasteur (1822-1895)

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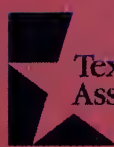


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Good News!

For the first time ever, the 1998 statistical report on cancer incidence and mortality shows a definite and significant down trend. In an editorial in CA,¹ David S. Rosenthal summarizes some of the favorable changes reported by the Department of Epidemiology and Surveillance of the American Cancer Society.

The 1998 numbers reveal not only a good reduction in the total number of new cancer cases, but a definite decline in cancer death rates and a continued improvement in the 5-year-survival rates for most cancers. After many, many years of trendless or rising statistics in the field of cancer epidemiology, it is indeed good news, and worthy of comment, to take note that a statistically significant down-tick has occurred in both mortality and incidence of cancer.

If we consider why there has finally been a smidgen of success in this difficult field, we soon realize that an enormous amount of work has been invested in the diagnosis and treatment of a wide variety of malignancies. A couple of generations ago, the idea was prevalent that "cancer" was "a disease" for which there would be found a magic bullet, or a penicillin, or a simple prophylaxis.

Rather, millions of physicians and scientists have labored, and studied, and searched, and found that cancer is many diseases, with many and sometimes multiple, causes. The (successful) treatment of a malignancy may require a highly individualized, highly specialized, or even complicated series of properly timed interventions. The prophylaxis of malignancy is presently in its incipency, and it appears to be highly complex, and to involve genetic, environmental, dietary, and possibly other, factors.

The timely diagnosis of malignancy has markedly improved during the last generation, and this improvement is no doubt an integral element of the 1998 down-tick in cancer mortality. Imaging techniques, patient awareness, and physician knowledge have all advanced considerably.

Many more cases of cancer are presently being diagnosed in an earlier phase of the disease, and this change plays a significant part in the better success rate.

Although no universal "magic bullet" for cancer has been found, the 1998 good news statistics report is nevertheless a reassuring portent. The multitude of incremental improvements accomplished by individual surgeons, oncologists, and medical scientists is proven to turn the tide in the "war" against cancer, and suggests that further successes will result from further detailed work.

It is worth notation that the consistent and rigorous application of scientific medicine to literally millions of individual cancer cases is probably the nucleus of the progress. While a variety of techniques and technologies have been invented and tried, and "natural remedies" and "alternative medicine" and "herbal healing" have been widely applied, it appears that the success with cancer belongs to scientific surgery and oncology.

The considerable fear and emotional stress experienced by the cancer patient frequently leads to an "irrational exuberance" in trying new or unproven remedies. Therefore, we physicians are called to be good advocates to help our patients use their time and resources wisely in their individual battle with cancer.

The medical profession's present knowledge of cancer is good news for our patients. Let us thoroughly and promptly share that good news with our patients, so as to spare them all unnecessary worry and fear.

Ray V. McIntyre, M.D.

Ray V. McIntyre, MD,
Editor-In-Chief

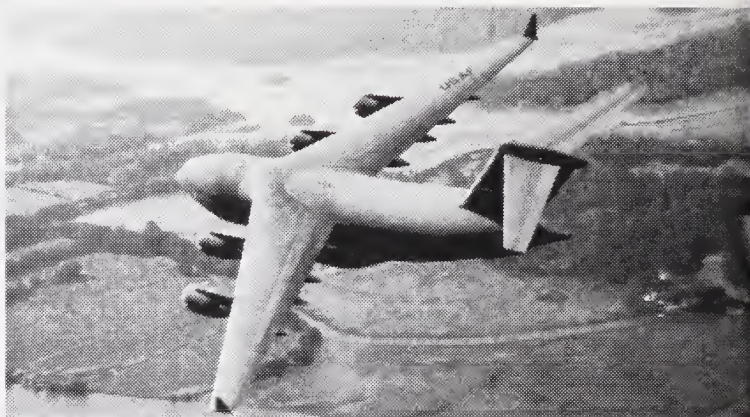
¹ *Changing Trends*. Rosenthal, D. CA: Vol48. No1. p3.

"...the success
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PRESIDENT'S PAGE

Thanks for Giving

As the days become shorter, the weather cools and holiday events begin to fill the calendar, thoughts about gratitude for the many gifts that are evident come to mind. In the whirlwind of daily practice it is a challenge to remember with a grateful heart the many individuals that assist this practitioner. During November, a time of thanksgiving, it is timely to identify some of those who have been involved in improving the health of our Oklahomans.

Several members of our OSMA have distinguished themselves as new members of various boards and organizations. Among them are Drs. John Leatherman and James Gormley on the State Board of Medical Licensure and Supervision, and Drs. John Stuemky, Paul Orcutt, Tom Tryon and Jeff Jones on the legislatively created SoonerCare Task Force. Dr. Steve Crawford chairs the Medical Advisory Committee of the Oklahoma Health Care Authority (OHCA) and Dr. Jeff Jones represents the OSMA on the OHCA's Medical Advisory Panel. Thanks for the additional volunteer time and expertise that these physicians spend to enhance the health of our citizens. And a special recognition to all that agreed to be nominated for the above positions. Your willingness to serve is appreciated.

Dr. David Selby has been selected as a member of the AMPAC Board of Directors and Dr. Boyd Shook has been named to the Professional Technical Advisory Committee of the Joint Commission on Accreditation of Hospitals and Organizations. Dr. Marie Bernard represents Oklahoma on the AMA Education for Physicians on End of Life Care program. Their efforts at a national level will improve our potential.

The daily efforts of the professional OSMA staff provide consistent information and aid to the membership. Mr. Brian Foy, Mrs. Kathy Musson and the efficient "crew" of Judy Lake, Barbara Matthews, Shirley Burnett, Marilyn Fick, Debbie Adams, Michele Smith, Sue Graves, Lydia Shirley, Lynne White and Heather Begay enhance our daily efforts to serve the physicians of Oklahoma and their patients.

Our OSMA executive committee has worked tirelessly and my heartfelt thanks goes to Drs. David Russell, David Selby, Boyd Whitlock, Bruce Storms, Robert Weedn, Carol Imes, Wallace Hooser, John Bozalis and Mr. Brian Foy. Their willingness to spend additional time has made this leadership role enjoyable.



The Board of Trustees has focused on issues of growth and development of our OSMA including approval of the OCVO transition team and hiring an information systems specialist recommended by the Computer Subcommittee of the Professional and Public Relations Council. Reports from the Council on Member Services, Medical Services, Public and Mental Health and the proactive participation of members on the Long-Range Planning Council were highlights of the recent Board and Planning Council meetings. The OMPAC Board and the Legislative and Government Affairs Councils have maintained their busy schedules. Thanks to all members for their active participation on Councils and Committees, and member mentorship of medical students. This newly initiated program has recruited 58 first year medical students into OSMA membership, linking them with physicians in practice and beginning an important legacy for both mentor and student.

Many members have expressed concern about the physician's image while, at the same time, share the significant efforts of community service that are provided. This president is thankful for the community involvement of the OSMA membership and the many ways it is expressed. The Scout, athletic team and Special Olympics physical exams that are contributed are a few of the examples of the positive report card of Oklahoma physicians. Some of you have initiated "free clinics" for the community. The extra efforts for your patients, the compassionate concern expressed to their families, a kind word or notes are some of the many intangible positive reports of your efforts. The "hard" data noted in our business offices in "accounts receivable" that are the bad debit write off are the bottom line red ink reports on our card of "charity" work. You are asked to develop this report card and turn it in to your OSMA. Armed with this information, we can approach our colleagues with the documentation of our business efforts in improving the care of Oklahomans.

This physician is grateful for the opportunity to participate in the health care of fragile newborn infants and their families, together with a dynamic group practice. Many have been flexible in responding to the OSMA needs and this individual's schedule. Family members and friends have been supportive and resourceful. To all of these, and to God, there is thanks for the giving.



Mary Anne McCaffree, MD
OSMA President

"During November, a time of thanksgiving, it is timely to identify some of those who have been involved in improving the health of our Oklahomans."

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Bylines may contain no more than six (6) names and shall include only those individuals who can attest that they have contributed to the conception and design, or analysis and interpretation of data; and to drafting the article or revising it critically for important intellectual content; and to final approval of the version to be published. Other contributions may be recognized in an acknowledgment.

References are to be listed in the order of their appearance in the article, and in the style used in both the *JOURNAL* and in *JAMA* (author, title, publication, year, volume number, pages). Footnotes, bibliographies, and legends for illustrations should be on separate sheets.

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Recent Advances in the Treatment of Alzheimer's

Ralph W. Richter, MD; Martin J. Farlow, MD

Introduction

Until recently, there was no treatment available for the primary deficits of Alzheimer's disease (AD) of short-term memory and cognitive function. Though AD was originally described in 1907 by Alois Alzheimer,¹ its widespread prevalence was not appreciated until the 1970s.² Descriptive neuropathology was available, but the relationships to neurotransmitter system deficits and the mechanisms of disease progression were not known.

Another problem has been the lack of understanding of the underlying causes of AD. Potential causes for the disease that have been studied include aluminum toxicity, exposure to other toxins in the environment, genetic defects, slow viral infection and neural degeneration from aging. Much has been learned over the past decade about disease mechanisms in AD, yet the root cause remains a mystery. Without an understanding of disease mechanisms, it has been very difficult to develop effective treatments. Further inhibiting the development of effective treatment for Alzheimer's disease has been the lack of precise tools to assess the clinical effects of the disease process, particularly the progressive deficits in short-term memory and various cognitive functions. Without a biochemical marker, sensitive and specific neuropsychological tests are needed to determine the natural longitudinal course of the disease and to assess the effects of any attempted therapy. Also, clinical trial methods are not well developed. Earlier studies were not always placebo-controlled or blinded. More recently, enrichment and cross-over trial designs have not proved adequate to test antidementia therapies.

Physicians with no means to treat the primary deficits of this disorder were limited to treating the secondary behavioral manifestations of

the disease, such as hallucinations, paranoia and agitation. These symptoms were treated with tricyclic antidepressant medications that also had considerable anticholinergic side effects. The serotonin uptake inhibitor antidepressants may be more useful and cause fewer adverse mental reactions.

Wandering has been a major problem for AD patients and has been managed by environmental restriction. In a home environment, this may mean using fences or locking doors or windows to prevent the AD patient's escaping from the family member's supervision. Many Alzheimer's units in nursing homes have as a primary feature a perimeter that confines patients to supervised areas. Sleep disorders in AD can also be very difficult for family members to deal with effectively. Behavioral modification such as eliminating daytime naps is sometimes effective; sedative medications may be used as a last resort in an attempt to re-establish a more routine sleep/wake cycle.

Therapeutic Approaches

From the mid-1970s and into the early 1980s, brains from patients with AD were being carefully investigated by neuropathologists and other researchers.^{3,4} The basic findings were characterized by a generalized loss of cortical neurons, neuritic plaques and neurofibrillary tangles. Although the formation of plaques and tangles are characteristic of progressive AD, it is still unclear whether they are the cause or a consequence of the disease process and neuronal injury. As a result of our poor understanding of the causative factors, there are still no therapies which prevent the onset of the disease. And while there appear to be some promising therapies which delay or slow the progressive nature of AD, most therapeutic strategies rely on the

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Table 1. Pathological Changes Correlated with Psychometric Findings in AD

Neuropathology	Psychometric Correlation
Neurofibrillary tangles in nucleus basalis of Meynert	Highly significant
Loss of synapses	Highly significant
Decrease in choline acetyltransferase (ChAT) activity	Very significant
Loss of neurons	Significant
Increased number of plaques	Not significant

Table 2. Peripheral Cholinergic Side Effects

Anorexia	Sweating
Bradycardia	Dyspepsia
Nausea	Hypotension
Facial flushing	Diarrhea
Vomiting	Muscle cramps

symptomatic improvement of the memory and cognitive deficits. The following sections briefly discuss several prominent strategies.

Cholinergic Therapy:

Among the early neuropathologic findings was the observation that there was a severe neuronal loss in the nucleus basalis of Meynert, which represents the major portion of the cholinergic neurons that projects to the cortex. This nucleus sends projections to many areas of the cortex, particularly the frontal, parietal and hippocampal regions. Acetylcholine (ACh) is the primary neurotransmitter of these neurons. A number of animal studies undertaken during that time indicated that cholinergic function was vital to memory and learning. These data were synthesized to develop the "cholinergic hypothesis of AD," which states that there is a direct relationship between the loss of cholinergic function in the brain and the degree of cognitive impairment that occurs in AD.⁵ The extreme dysfunction of the cholinergic system in AD is found in the cell bodies, axons, enzymes and receptors. Table 1 outlines some of the neuropathologic changes in AD that can be correlated with the severity of abnormalities observed in psychometric testing.⁶

The cholinergic hypothesis led to the first rational approaches to treatment of AD. The principle is straight-forward—increase the level of the neurotransmitter acetylcholine to compensate for the decreased levels found in AD. One early strategy to accomplish this was by feeding patients the precursors for acetyl-

choline. In the initial trials, patients were fed relatively large amounts of lecithin and choline (dietary supplements), both available in health food stores.⁷ Unfortunately when controlled trials were eventually organized, they demonstrated that these drugs were ineffective in improving the primary symptoms of dementia. Choline also had the unpleasant side effect of tending to cause the patients to smell like musty, rotting fish.

Acetylcholinesterase Inhibitors

The most significant improvement of cognitive symptoms thus far has resulted from the use of a variety of agents which inhibit the degradation of acetylcholine by the enzyme acetylcholinesterase.

Physostigmine was first used in short-duration AD trials in the early 1980s. Physostigmine is short acting and in high doses may have considerable cholinergic side effects (see Table 2).

There is evidence that long-term administration of physostigmine retards deterioration and improves and/or stabilizes neuropsychological function in some AD patients.⁸ A controlled-release physostigmine has been in phase III testing. A statistically significant difference between physostigmine and placebo on both a performance-based cognitive functioning instrument and a clinician's global evaluation were noted.⁹ Concomitant medications to prevent these side effects are being tested. A transdermal delivery system has also been evaluated.¹⁰

Eptastigmine (heptyl-physostigmine tartrate), a long duration, second-generation derivative of physostigmine, shows low hepatic toxicity and good cholinergic tolerability. In short-term (one month) efficacy studies, improvements were noted for the study group compared to the placebo group.¹¹ Longer-term studies will be necessary to fully evaluate the effect of eptastigmine.

Tacrine (tetrahydroaminoacridine) was the first agent approved for the treatment of AD and probably represents the best documented anticholinesterase for use in AD. Tacrine has several potential mechanisms of action that may give it antidementia effects. The most prominent is its ability to inhibit acetylcholinesterase reversibly. In addition, tacrine is a monamine oxidase B-inhibitor and it binds to muscarinic receptors and to potassium and calcium channels.¹²

Tacrine has been found to alter the processing of the precursor for β -amyloid precursor protein, which is the chief constituent of the β -amyloid plaques deposited throughout the cortex.¹³ In a landmark article, Summers et al reported the effects of tacrine versus placebo in a cross-over study in which 17 patients diagnosed with AD participated.¹⁴ A number of assessment measures were used, documenting substantial improvement in patients' activities of daily living. More than six major double-blind, placebo-controlled trials have been performed with tacrine over a wide range of doses (20-160 mg per day).¹⁵⁻¹⁸ Improvements in cognitive assessment were noted and significant delays in the progression of cognitive deficits were seen in long-term studies. However, heterogeneity of population response, peripheral involvement and hepatic side effects have necessitated liver enzyme monitoring and dosetitation regimens to be implemented.^{19,20}

Velnacrine maleate (HP029 [Mentane]), an acetylcholinesterase inhibitor, is a primary degradation product of tacrine. Until recently, it has been under development as a potential anti-dementia agent.^{21,22} Approximately 1,500 patients with mild to moderate dementia (MMSE 10 to 24) of a probable Alzheimer's type have participated in phase II/III clinical trials.²³ Approximately two-thirds of these patients showed an initial response, and 40 to 50 percent of all patients had sustained beneficial response in the range of 2.0 to 4.5 points improvement on the ADAS cognitive subscale. Significant effects were also observed in various instruments measuring the caregiver's rating of everyday behavior.²⁴ The most frequent adverse events observed were elevated liver enzyme levels and gastrointestinal cholinergic effects.

Metrifonate is an organophosphorous compound that is transformed into an active long-acting inhibitor of acetylcholinesterase. Large numbers of people in the tropics have been treated for acute schistosomiasis with metrifonate. There is little liver toxicity in current applications and fewer and less frequent side effects are reported. Clinical observations are in agreement with the hypothesis which postulates that a steady state of high cholinesterase inhibition relates to a favorable clinical response.²⁵ Metrifonate is well tolerated, and may have beneficial effects on memory, cognitive function and activities of daily living in a number of patients with probable AD.

Donepezil (E2020, Aricept®), a piperidine-based compound, is one of a second-generation class of highly selective, reversible acetylcholinesterase inhibitors. It was cleared for the U.S. market in late 1996, and in Europe in early 1997, and is now being very widely utilized for treatment of mild to moderately severe AD patients. The compound has a long duration and specificity for the brain acetylcholinesterase, with little peripheral acetylcholinesterase binding.²⁶ There has been no reported hepatotoxicity and a relatively low incidence of gastrointestinal side effects associated with this compound. The low hepatic toxicity permits freedom from liver function monitoring. Efficacy was statistically significant of ADAS cognitive subscale scores, quality of life (QOL) scale measures and MMSE scores during the initial 12-week trial.²⁷ The demonstrated improvement correlated strongly with the inhibition of acetylcholinesterase in the red blood cell membrane. Long term follow-up treatment data confirm its efficacy.²⁸ Controlled trials of more than 900 patients showed that over 80 percent either improved at either 5 mg or 10 mg once daily, or showed delayed deterioration of function.

Galantamine is a reversible competitive cholinesterase inhibitor and an allosteric modulator of nicotinic cholinergic receptors. It may both block degradation of acetylcholine (ACh) and increase ACh release by potentiating the effects of ACh at presynaptic nicotinic receptors. Double-blind studies in over 2,000 patients with AD have been conducted. Relative to patients treated with placebo, patients treated with Galantamine have shown statistically significant improvement in both psychometric scales (ADSA-cog) and clinical interview based assessments (CIBIC-plus).²⁹

Rivastigmine (ENA-713, Exelon®), a pseudo-irreversible carbamate-selective inhibitor, shows highly selective binding and inactivation without hepatic microsomal inactivation. Dose-dependent correlation with cognitive improvement similar to other anticholinesterases was seen. Clinical trials have shown benefit in cognition, activities of daily living and global function.³⁰

Cholinergic Activity Enhancers

Postsynaptic muscarinic receptors in the neocortex and hippocampus are largely spared in AD. It is now recognized that there are at least five different muscarinic receptor molecular subtypes. Muscarinic receptor agonists acting upon these

sites may enhance cholinergic function. Muscarinic receptor type I (M1) may play a more vital role in relation to potential therapeutic effects.

Xanomeline is a specific M1 agonist that is currently undergoing clinical trials.³¹ Muscarinic agonists may still be effective after loss of presynaptic cholinergic neurons. Evidence suggests that the postsynaptic muscarinic receptor system remains relatively intact even in moderately affected patients. Theoretically, these drugs may also be used additively with acetylcholinesterase inhibitors for possible greater benefits; however, the side effects may also be additive.

Memric (SB202026) is a muscarinic partial agonist with a high affinity for all muscarinic receptor subtypes, but which lacks the high selectivity for the M2 subtype. In an early efficacy study involving patients with probable AD, the drug was well tolerated and showed statistically significant separation from placebo on the ADAS Cognitive Scale.³² Further large-scale phase III efficacy studies did not demonstrate significant benefit.

Nicotinic acetylcholine (ACh) receptors account for only a small percentage of the total ACh receptors within the brain. The loss of central nicotinic receptors is a finding present in both AD and Parkinson's disease. Recent experimental work suggests that nicotinic systems may be involved in the modulation, partitioning and maintenance of attention, especially for tasks involving working memory.³³ Nicotinic augmentation of cognitive functioning may be a worthwhile strategy. Nicotinic agents would presumably work presynaptically at autoreceptors to raise levels of ACh within the synapse. Presently, such agents are in development at a laboratory stage.

Acetyl-L-carnitine (Alcar) is a betaine synthesized from protein-bound lysine in the liver and constitutes the carrier for free fatty acids. All body tissues contain carnitine in different concentrations. This compound is believed to act at the mitochondrial site and is a time-dependent inhibitor of calcium transport into the endoplasmic reticulum. A capacity to slow the progression of the neurodegeneration is suggested possibly by restoring depleted energy stores of surviving neurons or perhaps by detoxifying the cell environment from oxidative free radicals or other endogenous toxins.³⁴ In a double-blind parallel-group pilot study over 24 weeks, AD

patients receiving acetyl-L-carnitine showed less deterioration than matched placebo controlled patients.³⁵ A large-scale study identified no significant benefit with Alcar. A subgroup analysis suggested a trend toward a benefit in patients 65 years old or younger.³⁶ A new trial designed to further test the hypothesis that acetyl-L-carnitine may retard the rate of deterioration of AD in patients with early onset dementia is currently underway.

Agents of the acetylcholine releasing type affect multiple neurotransmitter systems in the brain. In theory, this may be of benefit in the treatment of AD, since multiple neurochemical system deficits have been identified with AD abnormality.

Linopirdine (DuP 996) is a potent in vitro and in vivo releaser of ACh, dopamine (DA), and serotonin (5-hydroxytryptamine [5-HT]) in rat brain.³⁷ This compound neither has significant anti-acetylcholinesterase activity nor binds to muscarinic receptors. The medication enhances the presynaptic, potassium mediated release of ACh and also increases intrasynaptic DA and 5-HT. Early phase II, double-blind, placebo-controlled studies suggest efficacy in terms of improved cognition and global clinical status in patients with AD.³⁸ The results of larger trials were equivocal and may have been a reflection of suboptimal pharmacokinetic and distribution properties of the drug. Two more potent anthrone analogs of linopirdine have been identified (XE991 and XR543), and tested in vitro and in vivo. Much more ACh release enhancing effect was demonstrated. These results suggest that XE991 and XR543 may prove superior to linopirdine as AD therapeutic agents.³⁹ No new clinical studies have yet been started.

Other Therapeutic Approaches

Calcium Flux Modification

Nimodipine (Nimotop) is a highly lipophilic 1,4-dihydropyridine calcium channel antagonist that crosses the blood-brain barrier. Nimodipine blocks L-type calcium channels in neuronal membranes. This medication has been utilized for several years in the treatment of subarachnoid hemorrhage. Possible therapeutic effect in dementia was suggested by preventing calcium overload, particularly in aged ischemic or otherwise damaged neurons. One of the mechanisms of cell loss in AD may involve an influx of calcium that causes neuronal dysfunction and/or neuronal death.⁴⁰ By influencing neurotransmitter

balance and by preventing excessive elevation of intracellular neuronal calcium levels, nimodipine or other calcium blockers might be expected to prolong cell survival and improve cell function.

Anti-inflammatory Response Strategies

Alzheimer's disease lesions are characterized by the presence of numerous inflammatory proteins. The extent to which inflammation contributes to the neurodegeneration that underlies AD remains an open question.⁴¹ A number of retrospective studies of patients with arthritis under treatment with nonsteroidal anti-inflammatory drugs (NSAIDs) have been reported.^{42,43,44} The small size of most studies has limited the statistical significance, but similarities in design made it possible to evaluate combined results.⁴⁵ The data suggest anti-inflammatory drugs may have a protective effect against AD. New controlled clinical trials will be needed to further prove the initial observations.

Estrogen

Recent evidence supports a role for ovarian steroids in normal maintenance of brain function and suggests that the loss of these steroids may play a role in cognitive decline and neurodegeneration found in women with AD.⁴⁶ The mechanism may be cholinergic stimulation via a neurotrophic effect on cholinergic neurons. Estrogens may also play a role in the processing of β -amyloid precursor protein toward a non-amyloidogenic fragment. Estrogen could thus reduce β -amyloid production and its toxicity, resulting in the lower incidence of AD in postmenopausal women on estrogen replacement therapy (ERT).⁴⁷ In initial, small short-term clinical trials, women with AD who were on ERT had improvement in attention, orientation and memory calculations. In a large community-based cohort study with follow-up of one to five years, the use of ERT was associated with reduced risk for and delayed onset of AD in elderly women.⁴⁸ A multicenter controlled clinical trial is currently underway.

Antioxidant and Protective Strategies

Idebenone is a benzoquinone derivative that has already been investigated for its effectiveness in dementing diseases.⁴⁹ Idebenone may exert its cytoprotective effect through an antioxidant mechanism. It protects against glutamate and β -amyloid induced neurotoxicity in neuronal cell cultures. These properties are relevant to AD since there is increasing evidence of

oxidative stress in the pathogens of the disease. Twelve-month safety and efficacy randomized double-blind studies are now being conducted. One study evaluates Idebenone versus placebo. A second study evaluates Idebenone or placebo-added treatment with Donepezil (Aricept®).

Lazabemide is a highly selective, reversible inhibitor of Monoamine oxidase-B (MAO-B).⁵⁰ Pre-clinical data suggests that MAO-B inhibition may be beneficial in AD and initial clinical data with Lazabemide suggested a favorable effect compared to placebo on cognition and global clinical symptoms over one year of treatment in patients with mild to moderate probable AD. Further placebo-controlled double-blind 12-month trials are now being conducted.

Selegiline (L-deprenyl [Eldepryl]), a selective monoamine oxidase-B (MAO-B) inhibitor, may have therapeutic efficacy in the treatment of AD.⁵¹ Oxidative stress and increased deamination associated with the pathophysiology of AD lead to the excess formation of toxic endogenous or exogenous by-products that may damage neuronal membranes and even culminate in cell death. Inhibition of MAO-B by the use of agents such as selegiline may provide a protective effect by scavenging the excess free radicals that are toxic to nerve cells.⁵² In Parkinson's disease, selegiline has been reported to delay disease progression in early stages of illness. Clinical trials with AD patients have been done to examine possible benefits of the combination therapy of selegiline and vitamin E.⁵³ Of particular interest is that either drug alone slows progression of the disease, but the combination of both did not cause additional improvement.

Recently studies have demonstrated that **nerve growth factor (NGF)** is deficient in the brain tissue of patients with AD, and that this lack of NGF may contribute to pathways that result in cellular dysfunction and neuronal death.⁵⁴ In the past, a trial utilizing NGF would have been prohibitive as a result of cost, availability, and the fact that this protein does not easily cross the blood-brain barrier. However, a research trial that will utilize reservoirs to bypass the blood-brain barrier may be organized to investigate the effects of NGF in delaying the progression of AD. There are also several clinical trials examining the effects of NGF on other neurodegenerative illnesses. Additional factors affecting nerve growth and maintenance are the **neurotrophins**. Whether these may prove efficacious is still open to study.⁵⁵

Table 3. Cholinergic and Neuroprotective Medications for Alzheimer's Disease

Drug	Status
Tacrine (Cagnex®)	Approved
Danepezil (Aricept®)	Approved
Galantamine	Phase III trials
Rivastigmine (Exelan®)	Phase III trials
Physostigmine-CR (Synapton®)	Phase III trials
Metrifanate	Phase III trials
Idebenone	Phase III trials
Lozabemide	Phase III trials
Memantine	Phase III trials

Propentofylline, a xanthine derivative, may have neuroprotective effects and may improve presynaptic cholinergic release.⁵⁶ Clinical trials are currently underway to explore the efficacy of propentofylline in patients with AD as well as in vascular multi-infarct dementia.

Hydergine, a combination of ergoloid mesylates, may provide some small benefit in patients with vascular dementia.⁵⁷

Memantine is a blocker of NMDA (N-methyl-D-aspartate) receptor channels and modulates glutamatergic neurotransmission. Glutamate is an excitatory neurotransmitter. Excessive glutamate release is associated with a number of acute and chronic neurodegenerative diseases. It has been hypothesized that uncompetitive NMDA antagonist may benefit the course of dementia both in a symptomatic and neuroprotective way. Initial controlled clinical trials in AD have shown statistically significant and clinically relevant improvement of cognitive disturbances, drive, motivation and motor functions.^{58,59} Further large-scale clinical trials are now underway to confirm the long-term tolerability and efficacy of Memantine in care-dependent outpatients in advanced stages of AD.

Ginkgo Biloba extract (Egb761) is derived from a tree indigenous to Asia. This extract has been widely used in Asia and recently in Europe for various cognitive and circulatory disturbances. It is presumed that a synergistic action of the extract's constituents creates an antioxidant that may function as a scavenger of free radicals. A study of efficacy and safety of Egb761 in patients with mild to severe AD and multi-infarct dementia showed modest improvement in cognitive performance and social functioning.⁶⁰ The study has been criticized because of the high dropout rates (53% in the Egb761 group, 63% in the placebo group).

Conclusion

All of the alternative mechanisms or hypotheses that have generated antidementia trials may be operating to some extent in AD. Only further clinical trials will determine the impact of drug treatment on these processes (see Table 3). It is likely that several of these drugs may eventually be used in combination to treat symptoms of this complex disease process more successfully.^{61,62,63}

Alzheimer's increasingly appears to be a syndrome rather than a disease. There are several different causative or susceptibility genes. There may well also be environmental triggers. In the future, recognition of these genes and triggers of disease process may allow more specific and effective therapies. How to prevent the deposition of tangles and plaques is an extremely promising avenue of research which awaits a more thorough understanding of the mechanisms of the disease.

Considerable hope for those victims of AD and their families has been created through the currently on-going basic scientific and pharmaceutical research. As more clinical data become available, a deeper understanding of the disease process will occur. More novel and creative therapeutic strategies will be developed and we can expect significant advances in alleviating the burden of the disease.*

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Ticks and Tick-borne Diseases in Oklahoma

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Tick-borne diseases are common in Oklahoma, especially the eastern part of the state where tick prevalence is highest. Three species of hard ticks are present in Oklahoma that are known vectors of human disease—the American dog tick (Rocky Mountain spotted fever; RMSF), the lone star tick (ehrlichiosis) and the black-legged tick (Lyme disease). Oklahoma consistently ranks among the top states in numbers of reported RMSF cases, and Ehrlichiosis may be as prevalent as RMSF.

Although Lyme disease is frequently reported in Oklahoma, over-diagnosing of this disease due to false-positive test results is common; positive or equivocal screening tests should be confirmed by Western immunoblot. At present, it is unclear whether the disease seen here is Lyme disease or another Lyme-like disease. If true Lyme disease is present in the state, it is probably rare. Physicians should be aware of the most recent recommendations for diagnosis, therapy and prevention of tick-borne diseases.

Ticks are prevalent in most parts of Oklahoma and physicians often consider tick-borne diseases ("tick fever") when evaluating persons with a febrile illness. Oklahoma consistently ranks among the states with the highest numbers of Rocky Mountain spotted fever (RMSF) cases. Although the epidemiology of ehrlichiosis in the state is not well defined, one study suggests that it may be as prevalent as RMSF.¹ Lyme disease (or a Lyme-like disease) is the most recently recognized tick-borne disease in the state, but since 1996 it has rivaled RMSF as the most commonly reported tick-borne disease in Oklahoma. Because the vector is prevalent and the potential for exposure to tick-borne disease is high among Oklahoma

residents, it is important that physicians be familiar with ticks and the diseases they transmit.

In this article we review the biology and distribution of the human disease-transmitting ticks in Oklahoma and relate this to the epidemiology of the major tick-borne diseases present in the state—RMSF, Lyme disease, ehrlichiosis and tularemia. Information on the distribution of ticks in the state and their disease-transmitting potential is based upon research performed by the Department of Entomology at Oklahoma State University. Data on human disease comes from cases reported to the Oklahoma State Department of Health (OSDH) as part of the infectious disease surveillance system.

Tick Biology

Ticks are invertebrates that belong to the animal phylum *Arthropoda* (jointed appendages). They belong to the arthropod class *Arachnida* that also contains spiders and scorpions. *Arachnida* have two body regions, lack antennae and have eight legs as adults. Ticks are a type of mite; they differ from spiders, scorpions and other types of mites in that they have barb-like teeth on their mouthparts and a sensory structure for smell and hearing (Hallers' organ) on the front pair of legs. The ability of ticks (especially hard ticks) to transmit disease to humans is enhanced by their longevity, fecundity, prolonged feeding bouts, diverse host range and ability to survive long periods of fasting.²

All species of ticks have four life stages—the non-motile and non-feeding egg; two immature stages (the six-legged larva and the eight-legged nymph); and the sexually mature adult stage. Both immature life stages are parasitic and with

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Figure 1. Adult American dog tick (*Dermacentor variabilis*); female (l) and male.

rare exception all adult ticks must first obtain a blood meal before mating can occur. When larvae and nymphs are fully engorged with blood they drop off the host and molt—larvae into nymphs and nymphs into adults. After mating, adult females detach from their host, drop to the ground to lay her eggs, then die. The eggs (2000-8000) will then hatch in approximately 30 days. The adult male will feed, detach, and mate with three to 25 females before dying.

Most ticks are slow feeders, requiring four to six days for immature stages to two weeks for adults to obtain a complete blood meal. In each stage, the tick (except the male) increases greatly in size after feeding. The larval and nymphal stages are so small they often are not seen until they have fully engorged with blood (the larval stage is often referred to as a “seed” tick). The slow feeding process of ticks results in a longer attachment time to a host, and thus enhances the opportunity for disease transmission. For most tick-borne diseases, it appears that the tick must remain attached for 24 to 48 hours before disease transmission occurs.

Ticks parasitize a wide range of hosts, including humans, other mammals, reptiles, and birds. At different life stages, ticks may feed on different hosts at different times of the year. For example, the tick in the nymphal or larval stage of a particular species may feed on rodents or birds in the spring, while the adult stage tick of the same species may feed on humans in the summer and fall. The epidemiology of tick-borne diseases in humans is, therefore, dependent upon the geographic distribution of the tick, availability of infected host species and upon the time of year a potentially disease-transmitting stage is feeding on humans. Although a tick may be capable of transmitting disease to humans in more than one life stage, one stage may be a more efficient transmitter than another.

The tick's development, activity and survival are affected by temperature and humidity. Ticks are sensitive to desiccation. Optimal conditions are those that provide moisture (humidity) and protection from direct sunlight, as well as the necessary vegetation for their host species. Under optimal conditions, some ticks may complete their entire life cycle in as short as three months. Under less-than-optimal conditions, the tick will over-winter as a nymph or an adult and complete its life cycle in the second year.

There are two distinct families of ticks in North America. The most abundant and commonly encountered family is referred to as *Ixodidae* or “hard ticks.” The less encountered family is *Argasidae* or “soft ticks.” Currently, 18 species of hard ticks and seven soft tick species have been collected from various counties in Oklahoma. Although a few soft tick species worldwide are able to transmit disease, this tick group is not an important vector of human disease in Oklahoma. However, Oklahoma has three species of hard ticks that are important vectors of human disease: the American dog tick (*Dermacentor variabilis*), the black-legged tick (*Ixodes scapularis*) and the lone star tick (*Amblyomma americanum*).

The American Dog Tick and Rocky Mountain Spotted Fever

The American dog tick (*D. variabilis*) is the only proven vector of RMSF (*Rickettsia rickettsii*) for humans in Oklahoma. (Fig. 1) It is also a vector of tularemia and human granulocytic ehrlichiosis (HGE), although HGE has yet to be identified in Oklahoma. Although the tick can be found throughout the state, it is most abundant in wooded areas of the eastern half of the state. Contrary to the black-legged tick and the lone star tick (whose prevalence and distribution is associated with the presence of deer), the distribution of the American dog tick is not dependent upon the presence of deer.

Larval ticks have been found feeding every month of the year on many species of small- and medium-sized wild animals. Nymphal feeding follows a similar pattern to that of larvae. Adult ticks that have over-wintered appear in the early spring in modest numbers, then subside slightly during the summer and increase again in the early fall. Adults readily feed on humans, dogs and several species of small mammals. Nymphs and larvae of this species rarely feed on humans. RMSF is transmitted primarily by the adult dog tick, since this is the only stage that routinely feeds on humans.

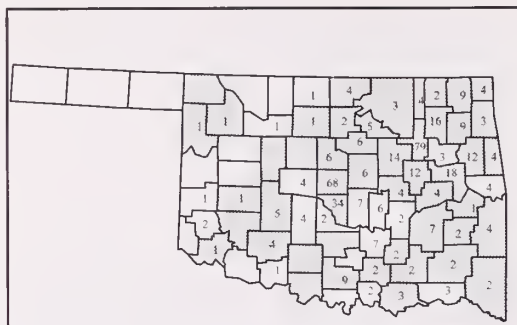


Figure 2. Rocky Mountain spotted fever: Distribution of tick vector (*Dermacentor variabilis*) and human cases, Oklahoma, 1991-1997. Shaded area indicates tick distribution based upon submissions to Oklahoma State University Entomology Dept. Number indicates total human cases reported in that county from 1991-1997 (N = 431).

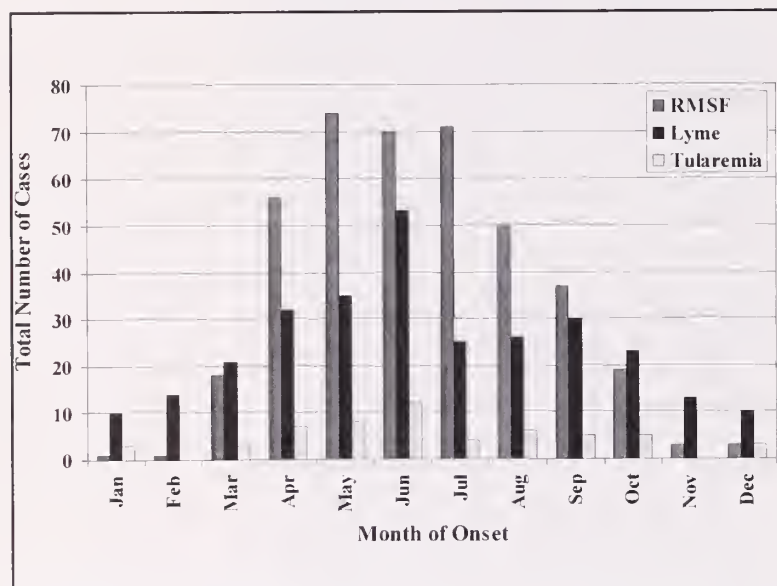


Figure 3. Tick-borne Illness Seasonal Distribution, Oklahoma, 1991-1997.

For the seven-year period 1991-1997, an average of 62 cases/year of RMSF were reported to OSDH. Seven deaths due to RMSF were reported in the state during that time, ranging in age from 41 to 89 years. Cases occur in all age groups (range 1 to 90 years) but the greatest number of reported cases occur in children under the age of 10 years (23.9%). The average case age is 36 years. Males represent the majority of cases (59%).

The majority (65%) of RMSF cases occur in eastern Oklahoma, consistent with the heaviest concentration of the American dog tick. (Fig. 2) The disease is rarely reported from the western, and particularly northwestern, part of the state. Tulsa County reported the largest number of



Figure 4. Adult black-legged tick (*Ixodes scapularis*); male (l) and female.

cases (18.3%), followed by Oklahoma County (15.7%) and Cleveland County (7.8%). Reporting data indicates the county of residence, not necessarily the county where the exposure occurred.

A known tick exposure was reported in only 61.5 percent of the reported RMSF cases in Oklahoma. Patients most often presented with fever (86%), headache (70%), myalgia (72%) and rash (66%). The characteristic rash on the palms of the hands or soles of the feet is only reported in 28 percent of cases.

Cases of RMSF occur throughout the year but the majority of cases occur between the months of April and September. (Fig. 3) This coincides with the time that the adult American dog tick is most actively feeding on humans.

The Black-Legged Tick and Lyme Disease

Lyme disease, caused by the spirochete *Borrelia burgdorferi* sensu lato, is the most common vector-borne illness of humans in the U.S. The principal vector for Lyme disease is *I. scapularis*, the "black-legged" or deer tick. (Fig. 4) White-tailed deer are the primary hosts of the deer tick and serve as the vehicle for introduction and maintenance of *B. burgdorferi* in nature. Small mammals, particularly *Peromyscus leucopus*, the white-footed mouse, are the primary reservoirs of *B. burgdorferi*. Immature *Ixodes* ticks become infected with the spirochete after feeding on the mice.

The black-legged tick is most abundant in the wooded areas of eastern Oklahoma. Contrary to the American dog tick and the lone star tick, the adult black-legged tick is active during the winter months. The larvae and nymphs are active from June through September and feed primarily on lizards, but may feed on small animals in the absence of

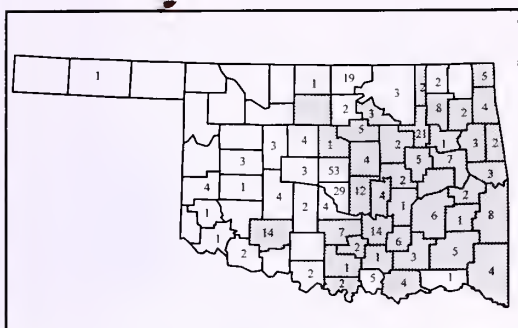


Figure 5. Lyme disease: Reported distribution of tick vector (*Ixodes scapularis*) and human cases, Oklahoma, 1991-1997. Shaded area indicates tick distribution based upon submissions to Oklahoma State University Entomology Dept. Number indicates total human cases reported in that county from 1991-1997 (N = 264).

lizards; rarely do they feed on humans. The adults become active in late September and early October, feeding on humans, dogs, cats, deer, horses and cattle, and remain active through March or April.

Although Lyme Disease is frequently reported from southern states, there is considerable controversy as to whether the disease reported here is the same as that in northern states. The disease here is often referred to as Southern Lyme-like disease and is thought to be caused by one or more different organisms. This controversy is primarily based upon the fact that *B. burgdorferi* has never been isolated from a human in a southern state in which the exposure definitely occurred there. Recent research has suggested that another, unculturable *Borellia* species transmitted by *A. americanum* (the lone star tick), might be the primary cause of Southern Lyme-like disease.³ Polymerase chain reaction testing revealed a distinct *Borrelia* species that has been dubbed *Borrelia lonestarii*.

However, other evidence suggests that human disease due to *B. burgdorferi* may occur in Oklahoma and other southern states. *B. burgdorferi* has been identified in ticks in southern states,⁴ including Oklahoma.⁵ Moreover, research performed at Oklahoma State University has shown the *Ixodes* tick to readily vector the causative agent of Lyme disease,⁶ but at present it is unclear which life stage is the primary vector in Oklahoma. Although the organism is present in southern ticks, it is much less prevalent than in northern areas. Compared to the hyperendemic areas in the northeast where tick surveys typically reveal infectivity rates of 20 to 25 percent or higher, only about two percent of

southern *Ixodes* ticks are infected with *B. burgdorferi*.⁴

There are several limitations to the Lyme disease reporting data presented here. It is important to note that although these cases meet the case definition for surveillance purposes, they do not necessarily meet the criteria required for clinical diagnosis. To be considered a case for reporting purposes, a person must have an erythema migrans (EM) rash of > 5 cm, or laboratory confirmation of *B. burgdorferi* infection accompanied by at least one clinical manifestation of a specific musculoskeletal, cardiac, or neurologic abnormality. For this definition, laboratory confirmation requires only a positive enzyme immunoassay (EIA or ELISA) or immunofluorescence assay (IFA). Although Western blot confirmation of a positive EIA or IFA is recommended for clinical diagnosis, it is not required for surveillance purposes. Whereas this technique is very sensitive in identifying cases of Lyme disease, it is not very specific and results in significant over-reporting of the disease. (The surveillance definition has recently been changed and now requires Western blot confirmation for manifestations other than EM.)

We analyzed cases reported from 1995 through 1997 to determine how Oklahoma reported cases were meeting case definition. Of the 146 cases of Lyme disease reported during that three-year period, 54 patients (37%) were reported to have had an EM of 5 cm or greater; however, none of these were culture proven. The majority of patients were diagnosed with Lyme disease due to musculoskeletal (58%) or neurological (23%) symptoms and serological evidence of disease. Although 125 (86%) of these cases were reported to have a "positive" EIA, it is not certain that any of these cases were definitely confirmed by Western blot. These data are consistent with findings from other studies and suggest that there is significant over-reporting of Lyme disease in Oklahoma.

Since becoming reportable in 1991, an average of 38 cases/year of Lyme disease have been reported in Oklahoma. The average age is 32 years with a range from one to 86 years. Females comprise the majority of cases (56%). The vast majority of cases (83%) occurred in eastern Oklahoma, with a small focus of cases in Comanche County in the southwestern part of the state. (Fig. 5) Lyme disease is reported throughout the year in Oklahoma, with most cases occurring during the summer. (Fig. 3) It is the most commonly reported tick-borne disease during the winter months.

Although Lyme disease is frequently reported in Oklahoma, it is unclear at present how much (if any) of what is reported is true Lyme disease. Undoubtedly, there is significant overdiagnosis, especially when the diagnosis is based upon equivocal musculoskeletal, neurological or cardiovascular manifestations and a positive EIA or IFA alone, without Western blot confirmation. Whether the EM-like rashes reported in state residents are due to *B. burgdorferi* or other organisms is yet to be determined and needs to be evaluated by culture when possible. *(see Note, pg. 444) Locally-acquired Lyme disease appears possible since *B. burgdorferi* is present in a small percentage of *Ixodes* ticks in Oklahoma and that tick has been proven capable of transmitting the organism. However, if Lyme disease is transmitted to humans in Oklahoma, it appears to be a rare event.

The Lone Star Tick and Ehrlichiosis

The ehrlichioses are emerging zoonotic infections that are caused by obligate intracellular bacteria of the genus *Ehrlichia*. Two human ehrlichioses occur in the U.S.: human monocytic ehrlichiosis (HME), which is caused by *Ehrlichia chaffeensis* that infects mononuclear phagocytes in blood and tissues, and human granulocytic ehrlichiosis (HGE), an infection of granulocytes that is due to a phylogenetically-distinct organism.⁷ At present, only HME is known to be present in Oklahoma. The lone star tick (*A. americanum*) (Fig. 6), the most common species found on dogs and humans, is a proven vector of HME in the state.^{8,9}

The lone star tick is a summer active species. It is the most prevalent tick species in the state, and, like most other ticks, is most abundant in the eastern half of the state. Larval populations appear in late April and remain active into October. Nymphal and adult ticks that overwinter become active in March and are most abundant in May. Adult populations decline rapidly in late July and August, but nymphal activity continues into October. All life stages of this tick will feed on almost any kind of host that is available, including humans. Humans are at greatest risk for ehrlichiosis at times during which the nymphal stage of the tick is feeding, primarily from March to September. At present, the lone star tick is not a proven vector of RMSF, contrary to many published reports. This tick has also been implicated in the transmission of tularemia and Q fever. Q fever is thought to be inconsequential as a tick-borne illness in Oklahoma.



Figure 6. Adult lone star tick (*Amblyoma americanum*); female (I) and male.

The clinical signs and symptoms of both forms of human ehrlichiosis are identical; they are also similar to the other tick-borne diseases, RMSF and Lyme disease. Common symptoms include fever, headache, malaise, myalgias, chills, sweating and nausea and vomiting. A macular or papular rash may be present but is less commonly seen than with RMSF. In a study of 27 patients with ehrlichiosis in Oklahoma in 1987, 35 percent reported the presence of a rash.¹ Common laboratory findings include thrombocytopenia, leukopenia, and elevated liver function tests. Anemia is noted in about half the cases.

The epidemiology of ehrlichiosis is not well defined since the disease is rarely laboratory confirmed and reported. Nationally, more than 400 cases of HME have been reported in 30 states, primarily in the southeastern and south central regions. Although the incidence of the disease in Oklahoma is not known, it may be as prevalent as RMSF. Serological testing of sera submitted for RMSF testing in Oklahoma in 1987 revealed equal numbers of specimens positive for *Ehrlichia* as for RMSF.¹ In that study, Ehrlichiosis cases ranged in age from four to 78 years and cases occurred between March and September, with a peak in May. Of the cases that have been reported, the majority have occurred in the eastern part of the state.

Tularemia

Tularemia can be transmitted both by the bite of infected ticks and also by exposure to the blood or tissues of numerous wild animals (especially rabbits) which serve as reservoirs for *Francisella tularensis*, the infectious agent of tularemia. In Oklahoma, the American dog tick and the lone star tick both have been implicated in the transmission of tularemia.

Oklahoma has traditionally been ranked among the highest states in the nation in the number of reported tularemia cases. Recently, however, a marked decline in the number of reported cases has been noted. Although there is no definitive explanation for this occurrence, the decline in the number of tularemia cases has closely followed a recent decline in the number of rabbit hunters in the state, according to hunting license data from the Oklahoma State Department of Wildlife.

For the period 1991 through 1997, an average of nine tularemia cases/year were reported in the state, with only one death. The majority of cases occurred in males (70%). Cases ranged in age from nine to 83 years, with an average age of 32 years. This disease occurred almost exclusively in the eastern part of the state and primarily in the warmer months (Fig. 3), corresponding to the most active period for the tick vector.

Current Recommendations for Diagnosis and Treatment of Tick- Borne Diseases

Diagnosis: RMSF and ehrlichiosis are confirmed by noting a four-fold rise in antibody titers to specific antigens in acute and convalescent sera drawn at least four weeks apart. A single specimen is generally not diagnostic of acute infection since it may indicate past exposure. *Rickettsia* may also be detected in skin lesions of persons with RMSF by IFA during the early stage of disease. RMSF testing may be obtained from numerous laboratories in the state, including the OSDH lab. Few laboratories currently perform *Ehrlichia* testing. Specimens submitted to the state lab are forwarded to the CDC in Atlanta for testing.

In addition to serologic testing, the etiologic agent of HGE may occasionally be observed in cytoplasmic inclusions in peripheral granulocytes (esp. neutrophils) during routine examination of blood. In contrast, HME is rarely diagnosed by this method. Although currently only a research tool, ehrlichia circulating in the blood can also be detected by polymerase chain reaction.

The diagnosis of Lyme disease is based upon clinical findings and supported by serological data by IFA, EIA and immunoblotting techniques. The disease is characterized by a slowly expanding annular skin lesion (erythema migrans), systemic symptoms and neurologic, rheumatologic, and cardiac involvement occurring in various combinations over a period of

months to years. Serologic tests are poorly standardized and must be interpreted with caution. They are insensitive during the first several weeks of infection and may remain negative in persons treated early with antibiotics. Test sensitivity increases when patients progress to later stages of disease but a small proportion of chronic cases will remain seronegative. False-positive reactions occur in patients with other diseases, including HIV, syphilis, leptospirosis, relapsing fever, RMSF, mononucleosis, lupus and rheumatoid arthritis.

Several studies point out the overdiagnosis of Lyme disease when the EIA or IFA is positive and the clinical syndrome is equivocal.¹⁰ Misdiagnosis is not inconsequential as it may result in a three to four week course of an expensive antibiotic. This has led to a more recent two-step approach, and also challenges who should be tested in the first place.^{11,12}

Initial testing should be performed using a sensitive EIA or IFA followed by a Western immunoblot. All specimens positive or equivocal by EIA or IFA should be tested by a standardized Western immunoblot. Specimens negative by EIA or IFA need not be tested further. When Western immunoblot is used during the first four weeks of disease onset, both immunoglobulin M (IgM) and immunoglobulin G (IgG) procedures should be performed. A positive IgM result alone is not recommended to determine active disease in persons with illness less than one month's duration because the likelihood of a false positive result is high in these persons. If a person with suspected early Lyme disease has a negative serology, serologic evidence of infection is best obtained by testing of paired acute and convalescent serum samples. Serum from persons with disseminated or late-stage Lyme disease almost always have a strong IgG response to *B. burgdorferi* antigens. Isolation from blood and tissue biopsies is difficult, but biopsies of skin lesions may yield the organism in 50 percent or more of cases.

Treatment: Although the definitive diagnosis of RMSF and ehrlichiosis requires serologic testing, when these diseases are suspected they should be treated empirically without awaiting laboratory confirmation.^{13,14} Because of the similarity of symptoms of these two diseases, it is generally not possible to differentiate between them on clinical grounds alone.

Recommended therapy for RMSF and ehrlichiosis is similar; a tetracycline is the drug of choice with chloramphenicol as an alternative. Although tetracycline drugs should not routine-

Table 1. Prevention of Tick-Borne Diseases

Avoid areas known to be infested with ticks.
Wear light-colored clothing to make tick detection easier.
Wear long sleeves and long pants tucked into socks.
Apply tick repellent such as diethyltoluamide (DEET) to the skin or permethrin to clothing. Search the entire body every three to four hours and immediately remove any ticks.

ly be given to children less than eight years old, many infectious disease experts consider doxycycline to be the drug of choice for children of any age with presumed or proven RMSF or ehrlichiosis, since tetracycline staining of the teeth is dose-related and unlikely to occur with the recommended short course and doxycycline is less likely to stain teeth than other tetracyclines.¹⁵

Also, since clinical manifestations of RMSF and ehrlichiosis are similar, doxycycline is effective against both infections, whereas chloramphenicol may not be as effective in HGE. Therapy should be continued until the patient has been afebrile for at least two to three days. The usual duration is seven to 10 days.

Most cases of Lyme disease respond well to appropriate antibiotic therapy. Drugs of choice include amoxicillin, doxycycline, and ceftriaxone. For adults, the EM stage can usually be treated effectively with doxycycline (100 mg BID) or amoxicillin (500 mg QID). For localized EM, two weeks of therapy is usually sufficient; for early disseminated infection, three to four weeks of therapy should be given. Children less than eight years old can be treated with amoxicillin 50 mg/kg/day in divided doses, for the same duration as adults. Cefuroxime axetil or erythromycin can be used in those who are allergic to penicillin or who cannot take tetracyclines. Lyme arthritis can usually be treated successfully with a four-week course of an oral agent. However, neurologic abnormalities are best treated with IV ceftriaxone, 2g once daily, or IV penicillin, 20 m.u. in 6 divided doses, for three to four weeks. Treatment failures may occasionally occur with any of these regimens and re-treatment may be necessary.¹⁴

Prevention

The primary strategy for the prevention of tick-borne diseases is personal protective measures to decrease the likelihood of being bitten by a tick; or, if bitten, to remove the tick promptly and correctly so as to decrease the likelihood of disease transmission. The general measures to

prevent exposures to ticks are summarized in Table 1.

The best method to remove a tick is to use forceps (tweezers) or protected fingers (using a tissue). Grasp the tick close to the skin and apply a steady pressure pulling the tick straight out. A twisting motion can cause the head to separate from the body and potentially remain in the bite wound. Immediately clean the bite site with a disinfectant. It is also important to remember that the fluids from a tick can contain pathogens so it is wise not to squeeze or pop ticks once they have been removed. Other methods of tick removal such as coating the tick with oil or finger nail polish, and putting a hot object to the tick are not recommended. Covering the tick with oil may take several hours to cause the tick to withdraw, allowing more time for possible pathogen transmission. Heat may cause the tick to regurgitate potentially infectious fluids into the wound and may in fact cause the tick to burst, also increasing the risk of exposure.

Vaccines to prevent Lyme disease are in the final stages of development and are expected to be available sometime in 1998 or early 1999. No effective vaccines are available for RMSF or ehrlichiosis. All cases of RMSF, Lyme disease, ehrlichiosis and tularemia should be reported to the Health Department.

Note

* The Centers for Disease Control is seeking to obtain biopsy, blood and urine specimens from persons with EM-like rashes in southern states in an attempt to confirm *B. burgdorferi*. This is for research purposes, not clinical diagnosis. To be eligible, a person must have acute onset (within 14 days of visit to physician's office) of an annular, erythematous, expanding EM-like rash that attains a size of at least 5 cm in diameter, when no alternative explanation for the rash can be found, and a history of tick bite at the rash site or potential exposure to ticks within 14 days prior to rash onset. For more information about this study, please contact Dr. Crutcher or an epidemiologist with the OSDH Communicable Disease Service, at 405/271-4060.

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Heatstroke in Runners in Oklahoma

Thomas Coniglione, MD

Heatstroke occurs when heat generated by the body exceeds the body's ability to dissipate that heat, and is characterized by hyperthermia, alteration in mental status, and an absence of sweating.¹ Classical (nonexertional) heatstroke occurs during heat waves and afflicts the elderly, chronically ill, sedentary, and young individuals. Exertional heat stroke (EHS) occurs in individuals who perform physical activity under conditions of excess heat and humidity. EHS develops in individuals whose physical activity is disproportional to their prior training, environmental acclimation, or state of hydration.² In the spring, these circumstances are common in Oklahoma in runners who are not acclimatized to the warm environment.

This is a report of EHS in runners at an Oklahoma race. The runners were treated at the race and did not require subsequent hospitalization.

Methods

All identified cases of EHS were participants in the Red Bud Classic. The Red Bud events are held over a weekend each spring and have been annual events since 1982. The events consist of a Saturday bike tour and children's fun run, followed on Sunday afternoon by a 6.2 mile (10 kilometer) run and 2 mile run/walk.

For the past decade the Red Bud Classic has been staffed by an organized medical team. The medical team's organization and function is designed to follow the guidelines established by the American College of Sports Medicine.^{3,4} From 1992-1995 the medical team had the opportunity to treat 39 runners with heat injury. Nine of the runners had heatstroke. In seven of the nine heatstroke runners, adequate data were available to summarize the Red Bud medical team's experience with EHS. (Table 1)

The medical team's protocols were developed in 1985 and are updated annually before each race. Updates are based on previous experience and the

contemporary literature.³⁻⁷ The team is composed of 20-25 medically related professionals. On an annual basis, 60-75 percent of the staff is experienced. Experience is based on participation in the previous year's race and other similar races. Before each race, the staff is updated on the protocols to be used by the team and each individual's assignment.

Data on each patient were recorded at the time treatment was provided. The treatment method utilized was on-site ice water immersion.^{1,7,8} The ice water immersion apparatus was positioned to be immediately accessible to the finish line.

Several days after heatstroke treatment, each patient was followed with at least one telephone interview. The interview was designed to determine the effectiveness of therapy, the development of complications and the adequacy of patient education.

Results/Discussion

All runners with heatstroke were participants in the 6.2 mile (10-kilometer) run. Six of seven affected runners were men. Six of seven runners collapsed at or within 0.2 miles of the finish line. Typically, runners who collapse will do so at the finish line or when the finish line is within sight.⁹ The usual location of collapse is of importance for race directors when considering deployment of their medical staff. At the Red Bud, many of the medical personnel are stationed at or within 0.5 miles of the finish line. The fact that treatment in these runners was initiated rapidly, usually within five minutes, is testimony to the importance of strategic placement of the staff.

Although there can be various components of the definition of EHS, an essential component to the definition is the presence of central nervous system (CNS) signs. These signs include coma, seizures, bizarre behavior, delirium and disorientation. Because our medical team prospectively defined EHS by the presence of CNS signs, these signs were present in all patients. Many runners exhibited more than one sign. Seizures are noted

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Table 1. Heatstroke in Oklahoma

Runner Number	1	2	3	4	5	6	7
Age	39	34	26	19	28	31	22
Sex	M	M	M	F	M	M	M
Location of collapse	At finish	6.1 miles	4 miles	At finish	At finish	6 miles	6.1 miles
Disoriented	✓	✓	✓	—	✓	—	—
Abnormal behavior	✓	✓	—	—	—	—	—
Seizure	—	—	✓	✓	—	—	✓
Syncopal	—	—	—	—	✓	✓	—
Delirium	✓	✓	—	—	✓	✓	—
Skin	Sweaty	Sweaty	Dry	Dry	Sweaty	Dry	Sweaty
Pulse amplitude	Weak	Weak	Full	Full	Weak	—	Weak
Pulse rate	120	124	130	unknown	unknown	unknown	unknown
Blood pressure	160/60	110/40	90/40	unknown	110/0	150/60	90/40
Time before ice (min.)	<5	5-10	10-15	<5	<5	<5	unknown
Time in ice (min.)	20	15	unknown	20	15-20	25-30	15
Initial temperature (F)	unknown	105	105	105+	105+	105+	105+
Final temperature (F)*	100	102	102	101	100	100	101
Total treatment time (hr:min)	1:15	2:20	1:30	1:20	2:00	2:30	1:15

* temperature when removed from ice
 ✓ = present — = absent

to occur in 60 percent with EHS.⁶ Seizures occurred in three of the seven EHS runners treated in this series.

The runners with EHS were immersed in the ice bath as rapidly as possible, often without further diagnostic evaluation or therapeutic intervention.^{6,8} For example, treatment was not delayed for the proper recording of temperature. Likewise, intravenous access was established after the patient was in the ice water bath. Intravenous diazepam was available for seizures. However, it was not administered to any seizure patient because of the short duration of these seizures.

Runners with seizures presented the most difficulty for the less experienced members of the medical team. The staff, mostly physicians and nurses, had only treated seizures in the familiar environment of an emergency room or hospital. Thus, treatment on a city street, an unfamiliar environment, challenged their sense of professional comfort.

Accurate temperature recording in heat stroke patients is usually difficult and measurement is often delayed. Experts advise not delaying treatment to record temperature.^{1,6} Our observations were similar. The patients were usually delirious, frequently combative and in general unable to appreciate the medical team's efforts. Often, immediate or pre-treatment recording of the temperature was not possible. Temperatures were recorded with rectal thermometers; the upper limits of these thermometers was 105°F.

Although heat stroke may be defined in terms of absolute core temperature measurements, the magnitude of temperature elevation is not diag-

nostic of EHS. Actually, some patients treated at the Red Bud for other forms of heat illness had temperatures as high as those reported for these EHS patients. However, without the presence of CNS signs, we did not make a diagnosis of EHS nor treat with ice water immersion.

Infrared tympanic membrane thermometers have recently come into widespread use. Since their introduction there has been some controversy regarding the use of tympanic membrane as opposed to rectal thermometers in EHS. Pilot field research suggests that rectal thermometers are more accurate in diagnosing EHS.^{8,10,11,12}

An absence of sweating is often described in nonexertional (classical) heat stroke.¹³ However, sweating is often present in EHS.⁶ Thus, the presence of sweating is of no diagnostic value in the diagnosis of EHS. Four of the seven EHS runners were sweating when medical attention first arrived. Our medical team was instructed not to delay treatment in those who were sweating.

In EHS, favorable outcome is inversely proportional to the duration of time between onset of symptoms and initiation of therapy.^{14,15} In these runners, the time from recognition of signs of heatstroke to the start of treatment was frequently less than five minutes.

EHS can be treated after the patient is transferred to an emergency room. However, experience gained at military training sites and other road races has led to the concept of treatment of EHS in the field.^{5,6,8,16} We used a similar approach—rapid on-site ice water immersion. An infant wading pool with an ice and water mixture was used.

Ice water immersion is to be maintained until body temp declines to 102°. Continuing immersion below 102° may be associated with hypothermia because the core temperature continues to fall after the patient is removed from the ice bath.^{1,6} We repeated rectal temperature measurements every five to 10 minutes. Although we planned to cool only to 102° F, five of the seven patients in this series were cooled to below 102° F (range 100° to 102° F).

In the treatment of EHS, there is a 33 percent incidence of overcooling with resultant hypothermia.¹⁰ As we sequentially measured temperatures, we found two over-cooled runners (#5 and #6). These two runners experienced a continued fall in rectal temperature to 95° F. They required external rewarming with blankets. Their treatment time was longer (120, 150 minutes) than most of the other EHS runners. They suffered no other adverse effects.

During the years the medical team has treated Red Bud runners for heat injuries, no patient was transferred to a hospital for treatment of any heat injury or resultant complication. All the runners with EHS were discharged to home after appropriate education of the runner and a family member. The duration of treatment ranged from one hour fifteen minutes to two hours thirty minutes.

All runners were rehydrated with intravenous Lactated Ringer's solution. One patient (#2) was moderately dehydrated and was rehydrated with 4 liters Lactated Ringer's solution. His treatment was longer than most of the other EHS runners due to a prolonged period of altered mentation. At the time of release to home, he was considered to be well hydrated as evidenced by clinical exam and urine color. Later in the evening, he experienced vomiting and presented to a suburban hospital. Laboratory tests were normal. Principally because of his history of dehydration, he was treated with another 4 liters of parenteral fluids. He was discharged the following morning. Over the next three days he noted considerable weight gain and edema of hands, fingers, lower legs and feet. Over the next week the edema subsided.

EHS can be associated with severe biological consequences: neurologic deficits, myocardial injury, acute renal failure, intravascular coagulation, pulmonary edema and death.^{6,13,16} Immediate treatment will minimize these complications.¹ Other than patient #2, no patient had any laboratory testing performed and by telephone follow up no patient had adverse effects from the EHS.

Before leaving the treatment area, each runner and a companion were educated on the causes, critical nature, and potential consequences of EHS. There was one interesting unanticipated

result. On telephone follow-up, the runners did not entirely appreciate the critical nature of their EHS. During repeated discussions, it appeared they could not relate potentially severe biologic consequences to their experience as their treatment and recovery was so expeditious.

Although some of the fall races are held in temperatures warmer than the spring races, EHS is more likely to occur in races scheduled in the spring. The difference is acclimatization—the process by which the body adapts to the environmental conditions.¹⁷

Conclusions

EHS can and does occur in Oklahoma in the spring. Race directors should provide runners with a trained, strategically deployed, and well-equipped medical staff. With immediate and organized treatment, EHS can be treated on-site without complications. Immediate ice water immersion is the treatment of choice. With appropriate treatment, EHS patients can be discharged to home. Education of the patient and a family member is as important as immediate treatment.

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Child Homicide in Oklahoma: A Continuing Public Health Problem

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Homicide is a leading manner of injury to cause death in children. To assess this phenomenon in Oklahoma, the demographic characteristics and causes of death of the victims of child homicide in Oklahoma have been reviewed. One hundred eleven consecutive cases of homicide in children less than age 13 years were reviewed and the demographic characteristics of the victims were analyzed. The majority of homicides occurred in Tulsa and Oklahoma Counties (55.8%). The ratio of male to female victims was approximately equal.

The races of the victims were 66.6 percent White, 24.3 percent Black, 8.1 percent Native American and 0.9 percent Asian. The most common cause of death was head injury (45.9%). An unexpected finding was that in 23.4 percent of cases, an additional fatality occurred in the family due to family violence. This fatality involved either suicide of the perpetrator or homicide of a sibling. These findings indicate a continuing family violence problem in Oklahoma.

Introduction

Child abuse has been recognized as a significant public health problem for many years and continues to be a leading cause of death in children in the United States.¹ Child abuse is an evolving concept that can be defined legally, medically, and personally. Each state has its own legal definition of child abuse. Child abuse represents a category of offenses which may have a variety of manifestations from neglect to sexual abuse and murder.² Child homicide is clearly the most serious manifestation of child abuse. The estimate of the total number of

abused children from the U.S. Department of Health and Human Services was 5.7 per 1000 in 1988 resulting in 0.02 fatalities per 1000 population.³ Similarly, the United States continues to be foremost in the world in infanticide.⁴

The causes of death and demographic characteristics of 111 consecutive children whose manner of death was ruled as homicide have been reviewed. The purpose of the study was to determine the characteristics of these victims including age, sex, race, counties of injury, and cause of death in the state of Oklahoma. Perpetrator information, when available through medical examiner scene investigations, was also collected. This information is useful in the characterization of the victims of child homicide in Oklahoma.

Materials and Methods

The case files of 111 consecutive cases of child homicide involving children less than 13 years old in the state of Oklahoma were reviewed at the Office of the Chief Medical Examiner in Oklahoma City. All cases in which the manner of death were ruled as homicide during the period of 1989 through 1993 were included. Records from the Eastern Division of the Office of the Chief Medical Examiner in Tulsa were forwarded to the Oklahoma City office for review. The study included 56 male and 54 female children (and one unidentified). Complete autopsy reports, scene investigations, and subpoenas received by the Office of the Chief Medical Examiner were reviewed. Information regarding injuries that caused death and the demographic characteristics of victims were tabulated on a spreadsheet. Race was

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defined by the medical examiner from external examination of the body at autopsy and by the scene investigation which involved communication with parents, guardians, siblings and other relatives.

Manner of death is defined as the means by which the cause of death occurred.⁵ In the state of Oklahoma there are six possible manners of death that can be included on the death certificate. These are homicide, natural, suicide, accident, undetermined, and pending. Cause of death is defined as any disease or injury that produces a physiologic derangement in the body that results in the individual's death.⁶ Therefore, the cases represented here were selected as those in which the manner of death was homicide and the cause of death was due to a variety of injuries.

Even when there is a significant delay between the initial injury and the time of death, the manner of death is ruled as a homicide if it is the initiating event that led to the child's death. Since all cases ruled as homicide were included, eight cases involved children who were victims of vehicular homicide. Information obtained concerning the relationship of the suspected perpetrator to the child was also recorded from the scene investigation.

Cases involving children less than 13 years old were selected because such cases most likely involved victims of child abuse rather than other acts of violence such as gang activity or criminal involvement. All information was tabulated to characterize the features of the victims of child homicide in Oklahoma.

Results

Between 1989 and 1993, 111 children in the state of Oklahoma less than 13 years old died with the manner of death ruled as a homicide. During this five-year period, the number of children murdered in this age group in Oklahoma ranged from 14 children in 1992, to 30 in 1993. These children died of a variety of causes including head injury in 45.9 percent of the victims, firearms in 13.5 percent of the cases and in 3.6 percent of cases, stabbing inflicted the fatal wounds. Blunt injury of the abdomen caused death in 2.7 percent of cases. In one case, there was extensive mutilation of the victim including partial evisceration and decapitation. The victims consisted of an approximately equal number of males and females (50.5% male, 48.6% female, and 0.9% unidentified due to decomposition). The mean age was 3.2 years; 27.9 percent represented

Table 1. Cause of Death in Child Homicide Victims in Oklahoma (1989-1993)

Cause of Death	Percent (number) Cases
Head trauma	45.9% (n=51)
Gunshot wounds	13.5% (n=15)
Stabbing wounds	3.6% (n=4)
Blunt trauma (abdomen)	2.7% (n=3)
Other causes	34.3% (n=27)

Table 2. Counties with the Greatest Number of Cases (1989-1993)

County of Injury	Percent (number) Cases
Oklahoma County	27.9% (n=31 cases)
Tulsa County	27.9% (n=31 cases)
Carter County	3.6% (n=4)
Muskagee County	3.6% (n=4)
Other counties	37% (n=41)

Table 3. Victims per Age Group

Age	Percent (number) Cases
0-3 years	58.5% (n=65)
3-5 years	18.9% (n=21)
5-12 years	22.5% (n=25)

infants (less than age 13 months). The racial mix of the victims included 66.6 percent white, 24.3 percent black, 8.1 percent Native American, and 0.9 percent Asian. No victims were identified as Hispanic. The fatal injuries occurred predominantly in urban areas with 55.8 percent of cases occurring in Tulsa and Oklahoma counties. (see Tables 1, 2, and 3)

An unexpected finding was that in 23.4 percent of the cases evaluated, there was a separate fatality in the family of the victim attributable to intra-family violence. These fatalities fell into one of three categories: 1.) suicide of the perpetrator immediately after committing homicide, 2.) murder of more than one sibling in the same family, or 3.) murder of the mother of the victim immediately before or after murdering the child. Two cases involved the murder of four children of the same family and in four cases, two children of the same family were murdered. These findings are indicative of the severe brutality of these incidents.

Discussion

Child homicide represents the ultimate act of child abuse. In the state of Oklahoma between 1989 and 1993, 111 children less than 13 years old were determined to have died as the result of homicide. This does not include those cases that may have evaded law enforcement authori-

ties or circumvented the medical examiner system. For example, some cases of sudden infant death syndrome (SIDS) may actually be undetected smothering deaths. It has been estimated that two to 10 percent of SIDS deaths represent smothering deaths in which the scene investigation and autopsy findings are similar to a death due to SIDS.⁷

The common finding of more than one murder in a family or a homicide/suicide scenario is indicative of the severity of family violence in Oklahoma. Many cases were not isolated incidents of child abuse precipitated by parental stress, but rather, brutal acts of violence including the use of firearms or knives. Excluding vehicular homicide (eight cases), the perpetrator was unknown to the victim prior to the attack in only two cases in which perpetrator information was available. This is similar to findings of other authors which characterizes the perpetrator of child abuse and child homicide as more often a caretaker of the child rather than an unknown adult.

The demographic characteristics reveal that victims of child homicide in Oklahoma are more often younger children (mean age being 3.2 years). In 27.9 percent of cases the child was less than 13 months old. Head injury more often occurred in younger children. Head injury was the most common injury resulting in death in 45.9 percent of the victims. Children are particularly susceptible to head injury since they have larger heads relative to total body mass in contrast to adults. They also have weaker neck muscles and larger subarachnoid spaces allowing more movement of the brain within the cranial vault and a greater "whiplash" effect.

The term "shaken baby syndrome" has been used to describe those children who were subjected to vigorous shaking by a caretaker resulting in shearing forces that produce subdural/subarachnoid and retinal hemorrhages. Other studies determined that these children also have evidence of impact injury in the occipital and parietal regions that resulted in rapid deceleration enhancing the subdural/subarachnoid hemorrhage and shearing injury sufficient to result in death.⁸ Currently many authors prefer the term "shaken impact injury" to describe this phenomenon. In a shaken impact injury, as well as in other forms of child abuse, there may be very little external evidence of injury, even in the presence of fatal internal injuries.

The present study has addressed and characterized the victims of child homicide in Oklahoma during a five-year period (1989-

1993). The results indicate that child abuse and its resultant mortality continues to be an important public health issue within the state of Oklahoma.

Family violence in Oklahoma and throughout the nation is a public health issue that demands the attention of all physicians. □

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Discussion

SPMI patients pose a challenge for medical and psychiatric providers alike. The MOCS program has been started to address this challenge in Tulsa, Oklahoma. The program is able to take psychiatric care into the community, providing care that might not otherwise be received. Preliminary data on the Tulsa MOCS program suggest good outcomes and patient satisfaction. Primary care physicians can utilize these services in the management of their patients with SPMI, benefiting the patient and physician alike. The value of this type of service may be difficult to measure but should not be confused with a lack of efficacy. A literature review indicates that hospital diversion rates is a common outcome measure in mobile outreach programs, but the use of one criterion should be cautioned against and the pitfalls of this practice were discussed. Certainly, more study and better outcome measures are necessary to understand the most cost-effective and humane methods of administering care to patients with SPMI. □

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WORTH REPEATING

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What Doctors Who Perform Child Abuse Medical Evaluations Want the Rest of the Team to Know

by Robert Block, MD

"This case really rests on your shoulders, Doc," one Assistant District Attorney once told me. "Without your evidence, our case is *really* weak." There was only one small problem—there was NO physical evidence!

After several years in the field, I now recognize that a case should *never* rest on the shoulders of any one team member. The purpose of a multi-disciplinary team is for those professionals responsible for the protection of children to work together as effectively as possible in the best interests of the child. Medical evaluations should never be used as the sole source of evidence for a case.

It is important to understand what medical examinations in cases of child abuse can and cannot do. The medical evaluation contains two major components: 1) the history, taken by the doctor for purposes of diagnosis and treatment; and 2) the actual physical examination.

Especially in sexual abuse cases, but with other types of abuse as well, the doctor will interview the patient to obtain his or her perceptions of what may have happened and how the patient feels. The more complete the background information that can be provided to the physician by law enforcement or child welfare, the more useful the medical evaluation will ultimately be.

The history-taking portion of the medical examination is critical. Some physicians may be more skilled than others in this area. Interpersonal communication is a skill, especially when talking with children about such sensitive issues as sexual or physical abuse. There is no credible evidence to support the now popular assertion that a skilled interviewer, operating within approved guidelines, will elicit false information. There is, however, evidence to support the fact that not all interviewers are skilled. Further, it is well known that poor interviewing can distort the truth.

The physical examination is NOT performed to "validate" or "confirm" abuse, but to evaluate a child for injury, infection, or other pathology. The examination may reveal findings consistent with abuse, suggestive of abuse or sometimes diagnostic of abuse, as well as findings consistent with no abuse. Only about 15 to 20 percent of the physical examinations done in cases of alleged sexual abuse will be positive. *A normal physical examination should never be taken as support for the assertion that no abuse occurred.*

Physical findings should always be documented by photo or video, or described in exacting detail. The result of the physical findings should always be interpreted in the light of the information obtained from all other available sources, including the child.

Most often, the medical examination consists of a single visit. At times, a return visit is needed to re-check findings, to perform

laboratory tests or to assess the progress of healing injuries. Depending on the information obtained either through the child's disclosure or through the investigation of the case, investigators should consider whether it might be appropriate to seek a medical evaluation for other possible victims, such as siblings, neighbors or the child's friends.

Physicians can be a support to team members in child abuse cases, or there can be a reluctance to participate. Unfortunately, when the road to patient management and follow-up is paved with unnecessary adversity, many physicians will react by declining to be involved with similar cases in the future.

Obstacles to appropriate physician participation in child abuse cases includes misunderstandings of the roles of the different disciplines, lack of training in child abuse medical examinations, poor (if any) reimbursement for time and expenses for the physician, and considerable patient-care time lost to the court process.

Communication is the key to successful interventions and it is especially important between physicians and members of the team. Clarify the roles, expectations, procedures, policies and legal responsibilities for everyone on the team. Prosecutors should try to meet or visit with the physician prior to a court date to answer any questions and review testimony.

It is imperative to utilize existing technology such as cell phones or pagers to eliminate a physician wasting precious time waiting in courthouse lobbies to testify. Visit the physician when there is not a case pending and talk with him/her about their frustrations related to child abuse and neglect cases and how those frustrations might be addressed. Invite the physician to provide a presentation at a team meeting on conducting a medical exam or other aspects of patient care.

Physicians are a pivotal part of the child protection system. The physician can evaluate, document and report findings. He or she can sometimes equate the findings with abuse, especially physical abuse.

In most instances, confirmation of abuse, and later prosecution, will depend on reports synthesized by a competent multi-disciplinary team willing to share information based on facts rather than bias, evidence rather than perception, and informed opinion rather than guesses. As in all areas of child abuse work, communication is the key. It is the team, rather than any single member, which must have the shoulders on which rests the future of our children.

The Author

Robert Block, MD, is the chair of the Department of Pediatrics at the University of Oklahoma College of Medicine in Tulsa. He serves as medical director of the JUSTICE Center and the chief child abuse medical examiner for the State of Oklahoma.

Table 2. Referral Sources

Family member	27%
Police	22%
Social service agency	15%
Self	12%
Parkside provider	10%
Other	7%
Friend	4%
Parkside crisis unit	3%

Data courtesy of Tulsa Institute of Behavior Services

call is made to the MOCS unit are psychotic behavior (51% of patients), suicidal ideation (29% of patients), depression (30% of patients), substance abuse (27% of patients) and antisocial behaviors (27% of patients). (Table 1) A careful phone triage is completed before a MOCS team goes out. Callers are asked if the person being referred has a history of violence or a weapon in the home. They are asked if the person is suicidal and if they have an immediate plan or availability of a method to harm him- or herself. Based on the triage, the Tulsa Police Department may be called to assist.

The most common referral sources are the individual's family or relative (27%), police (22%), other social service agency (15%), self (12%) and Parkside provider (10%). (Table 2) Anyone is allowed to make a referral provided the patient is within Tulsa County. Often, calls are received from out-of-state. The Central Evaluation Unit at Parkside (CEU) commonly receives calls from patients or family members who are concerned about their loved ones; these calls may be routed to the MOCS unit.

There have been no specific data gathered as of yet relating to the number of referrals from primary care physicians, but the staff in general considers it to be a low occurrence. This is likely due to the lack of awareness that the program exists. However, primary providers often care for patients with serious mental illness, i.e. those with suicidal ideation, in the office. The physician is reluctant to send the patient away with instructions to get treatment for fear of what the patient could do if he or she were left alone. The alternative is to call 911 or have the police transport the patient to the appropriate treatment center to insure the patient's safety. This may be an uncomfortable choice for some physicians to make. A better option, and one which may be less traumatizing to the patient, is to advise them that a mobile outreach team will come to the office, evaluate them, make recommendations for treatment, and transport them if necessary.

A physician may also encounter a psychotic patient in his office, one who is in distress from paranoia or delusions, or one who may appear to be unable to care for themselves. The physician could request that MOCS evaluate the patient and make appropriate referrals for services. A primary care provider may have knowledge of a patient who is unable to come into the office because of severe depression and amotivation, or of a patient with severe panic and agoraphobia who is unable to leave their house due to their intense fear and anxiety. These are all situations in which MOCS may be of benefit to physicians in the community as well as to the mentally ill patients who are referred.

The following two cases are recent referrals by primary care practitioners, illustrating how the patients of primary care physicians may benefit from MOCS' services.

Case #1:

HG is a young man in his early thirties who was well acquainted with the local police in a small suburb of Tulsa. The police had been called numerous times on this young man with complaints from neighbors and local business owners about his bizarre behavior. His father reported that he had a long history of a mental illness but had managed to avoid hospitalization, largely due to his parents' extensive social and financial support. On a follow-up from a police call on this client, a MOCS physician and therapist visited the patient at his home where he lived alone. They found the patient to be markedly disorganized in his thought processes, expressing significant paranoia, and exhibiting gross boundary violations. The patient refused to consider taking any medication prescribed by the MOCS physician, but deferred to his family practitioner whom he had been seeing for many years. His family physician was uncomfortable prescribing an antipsychotic medication but expressed an interest in doing so if he could first talk with a physician trained in using psychotropic medication. The MOCS physician contacted the patient's doctor and discussed options in using antipsychotic medications. Olanzapine was chosen and the MOCS nurse took starter samples to the physician's office. The patient was prescribed the appropriate medication from a physician whom he trusted, and he consented to treatment.

Case #2:

In the spring of 1998, MOCS received a call from a family practitioner in north Tulsa who

requested help with an elderly woman who was in his office. She was there for a routine visit, but became tearful and upset, and was saying that she didn't want to live any longer. She had been hospitalized for depression a year prior to this visit. The physician called MOCS and requested them to come to his office to evaluate her. Upon arrival, they found a pleasant elderly white female reporting a return of frequent crying spells, severe anxiety, and difficulty sleeping. They discovered that she had already scheduled an appointment with her psychiatrist in five days time. She denied having suicidal thoughts or intent and agreed to sign a no-harm contract. Her husband agreed to stay with her over the next few days, and she was given the phone number to the crisis line. The couple was contacted by phone for follow-up and the husband reported that his wife was doing better and would keep her appointment with her psychiatrist. The couple was again advised to call if they needed assistance.

These cases illustrate how mobile outreach can interact with primary care to the benefit of the patient.

Literature Review

Much has been written in recent years regarding psychiatric emergency services, including articles on mobile outreach. It is of interest that these programs are tremendously popular and are believed to be very beneficial, and yet there is a paucity of good empirical data to support the efficacy of these programs. A widely held claim in the literature is the savings resulting from inpatient admission diversions from this service. Geller et al⁴ pointed out in 1995 that there were few clinical studies in the literature investigating the outcomes of mobile outreach programs. Bengelsdorf et al⁵ looked at determining the cost savings of hospital diversions into community-based treatment. They found a savings of greater than \$40,000 more than the cost of mobile crisis intervention in a group of fifty patients. An Australian study in 1990 by Reynolds et al⁶ found that after the institution of a mobile crisis outreach program in New South Wales, inpatient admissions were halved. Fisher et al⁷ attempted to directly address the claims that mobile crisis services reduced hospital admission rates and compared a group of twenty catchment areas with mobile capacity to a group of twenty which did not. They found no evidence that mobile programs affected admission rates but believed the data suggested they were effective in some situations, but not in oth-

ers. In this article by Fisher et al, they discussed the common muddle in these types of studies, i.e., the hospital diversion rates may be off-set by the increased number of patients brought into treatment by this model of assertive community outreach. Considering this, an increase in services to patients who previously had largely escaped attention and treatment could have attenuated the admissions.

It would be a poor measure of outcome if only one criterion was used to assess efficacy. However, many investigations endeavor to do this when they only assess inpatient admission diversions. Perhaps this is because benefits derived from mobile outreach services are not as tangible or as easily measured. Zealberg et al⁸ note in their article that there are other ways in which costs are off-set by using mobile crisis services, i.e., the reduced burden on law enforcement personnel when they are allowed to return to duty when relieved by mobile outreach staff. They also note other savings through reduced court costs and reduced family burden. Even less tangible are the benefits realized by patients who are provided with greater accessibility to care. Patients with a severe mental illness or who are in crisis find it difficult to manage the complexities involved in outpatient treatment, such as keeping their scheduled appointments or obtaining their medication. When faced with tasks that appear daunting, they may choose instead not to act at all. Other intangible benefits are the improved quality of life, reduced pain and suffering, and increased productivity for those who are provided care they would not otherwise receive.

Some studies have used surveys and structured interviews to assess outcomes of mobile psychiatric programs. Reynolds et al⁹ found that most patients (58.2%) and their relatives (60%) were "very satisfied" with treatment received from the mobile outreach teams, and believed that the treatment they had received helped "greatly."

In a study yet to be published,¹⁰ commissioned by Parkside Hospital and funded by HUD, it was found that MOCS reduced homelessness and significantly decreased psychiatric symptomology in the homeless study population. In a satisfaction survey as part of this study, patients who had received MOCS services reported a 90.5 percent satisfaction rating vs. 70.0 percent in the control group.

Discussion

SPMI patients pose a challenge for medical and psychiatric providers alike. The MOCS program has been started to address this challenge in Tulsa, Oklahoma. The program is able to take psychiatric care into the community, providing care that might not otherwise be received. Preliminary data on the Tulsa MOCS program suggest good outcomes and patient satisfaction. Primary care physicians can utilize these services in the management of their patients with SPMI, benefiting the patient and physician alike. The value of this type of service may be difficult to measure but should not be confused with a lack of efficacy. A literature review indicates that hospital diversion rates is a common outcome measure in mobile outreach programs, but the use of one criterion should be cautioned against and the pitfalls of this practice were discussed. Certainly, more study and better outcome measures are necessary to understand the most cost-effective and humane methods of administering care to patients with SPMI. J

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The Author

Robert Block, MD, is the chair of the Department of Pediatrics at the University of Oklahoma College of Medicine in Tulsa. He serves as medical director of the JUSTICE Center and the chief child abuse medical examiner for the State of Oklahoma.

Residents Believe Oklahoma Should be Leader in Medical Research

Results of a public opinion poll conducted among 800 adults in Oklahoma reveal that medical research is a high priority for Oklahomans. The poll, conducted by Charlton Research Company, commissioned by Research!America, and supported by Presbyterian Health Foundation, the Oklahoma Medical Research Foundation, and the OU Health Sciences Center, was the first statewide public opinion poll concerning people's attitudes toward medical research.

Ninety-five percent of survey participants said that it is important for Oklahoma to be a leader in medical research; 88 percent of respondents said that it is very or somewhat important to spend money on medical research in the state because it adds jobs and increases the incomes of Oklahoma residents. Additionally, 75 percent of respondents believe that basic research should be supported by the federal government, and nearly 90 percent approve the use of state-funded incentives for medical research.

Other results of the poll:

- Three-fourths of respondents agree that Congress should support tax and regulatory policies that encourage private industries to conduct more medical research.
- 60 percent of respondents would be willing to pay one dollar more for each prescription drug to support health research.
- 95 percent of respondents believe clinical research to be of value; 55 percent indicated that it is of great value.
- Three out of five respondents indicated that they would be willing to participate as a volunteer in a clinical research study.
- 93 percent of respondents consider nurses and personal physicians to be the most trustworthy source of information about health and medical research issues; 89 percent also consider health agencies, medical schools, and dentists to be trustworthy.

Oklahoma County Medical Society Hosts Legislators



(l-r) William O. Coleman, MD, and Mukesh Parekh, MD, are joined by Rep. Fred Morgan.

The Oklahoma County Medical Society hosted some of the state's legislators for a reception, then dinner and entertainment at their Sept. 22 membership meeting.

At the meeting, the OCMS also presented certificates of appreciation to legislators who voted "medically friendly," by aligning with the position of the OCMS.



Rep. Betty Boyd (l) visits with Rebecca G. Tisdal, MD.



OCMS President Robert S. Wilson, MD, (r) meets with Rep. Ron Langmacher.



Carol B. Imes, MD, (l) listens to Rep. Bill Paulk.

AMA and Robert Wood Johnson Foundation Co-Sponsor "A Matter of Degree" Program

The AMA and Robert Wood Johnson Foundation have combined efforts to develop *A Matter of Degree*, a nationwide campus/community partnership program designed to reduce the amount of binge drinking that occurs on college campuses. The unique program is designed to identify and address those factors in the college and community environment that encourage students to drink to excess, including cheap drink specials and the sale of alcohol to minors.

The AMA recently announced that the University of Nebraska-Lincoln, Louisiana State University, Florida State University, and the Georgia Institute of Technology have joined the program, bringing the total number of participating universities to 10. Other participants include the following universities and their surrounding communities: Lehigh University, the University of Colorado, the University of Delaware, the University of Iowa, the University of Vermont and the University of Wisconsin. AMA President Nancy Dickey, MD, welcomed the new participants who, she said, "recognize that binge drinking is a disruptive, destructive and victimizing practice that has no place at an institution of higher learning."

In addition to *A Matter of Degree*, the AMA also sponsors other initiatives relating to alcohol and drug abuse. Information about these programs is available from the Office of Alcohol and Other Drug Abuse, Richard A. Yoast, Director, or Sandra Hoover, Deputy Director, 312/464-5687.

Oklahoma Physicians Receive National Recognition

Roy L. DeHart, MD, MPH, recently received two national medical awards. He was presented the American College of Preventive Medicine's Distinguished Service Award and the William S. Knudsen Award from the American College of Occupational and Environmental Medicine. Each award reflects career service in the field of medicine.

Dr. James Allen and his wife, Barbara, received the Eric Berne Memorial Award for Advances in Psychotherapy. The award was given by the International Transactional Analysis Association in recognition of more than 30 years of writing by the Allens.

OSMA President-Elect Named Internist of the Year

OSMA President-Elect **Boyd O. Whitlock, MD**, was recently named Internist of the Year for 1997-1998 by the Oklahoma Society of Internal Medicine. This award recognizes those physicians whose peers have acknowledged them as leaders in their field. A member of the Society of Internal Medicine since the early 1970s, Dr. Whitlock served on the Council for four 3-year terms. In 1994 he was elected vice-president, in 1996 he stepped into the role of president then served in this position until July 1998.



Diabetic Patients Encouraged to Receive Influenza Vaccine

Frank Vinicor, MD, MPH, Director of the Division of Diabetes Translation of the Centers for Disease Control (CDC), is encouraging physicians to include influenza and pneumonia vaccinations in their diabetes management programs.

He reports that 10,000 to 30,000 people with diabetes die each year from complications of the flu or pneumonia, and individuals with diabetes are six times more likely to be hospitalized during a flu epidemic than individuals without diabetes.

Estimates indicate that immunizations could prevent up to 80 percent of deaths associated with the flu, but that nearly two in three adults with diabetes do not receive the vaccination.

U.S. House of Representatives Votes Against the Legalization of Marijuana for Medical Uses

The House of Representatives voted 310-93 on a nonbinding resolution against the use of marijuana for medical purposes, as reported in the *American Medical News*. Arguing that scientific evidence does not prove any therapeutic claims of marijuana, and that medical legalization may lead to general legalization, House supporters indicated that it is important to provide a clear message about the dangers of marijuana use to young people. This fall, voters, rather than the medical community in five states will determine whether or not marijuana provides medicinal or therapeutic benefits; states with this issue on the ballot are Alaska, Colorado, Oregon, Nevada, and Washington.

Oklahoma Physician Leadership Continues On a National Level

John G. Campbell, MD, has been selected as the President-Elect of the American Academy of Otolaryngology—Head and Neck Surgery by the organization's membership at the Academy's annual meeting Sept. 13-16, in San Antonio, Texas.



Dr. Campbell is a clinical professor and vice-chair of the Department of Otolaryngology at the University of Oklahoma College of Medicine.

Patrick A. Bell, MD, has been appointed Chair of the American Academy of Family Physicians (AAFP) Commission on Quality and Scope of Practice. The one-year appointment, made by the AAFP Board of Directors, began in September 1998. Dr. Bell has also served as an alternate delegate for the AAFP and is Past President for the Oklahoma Academy of Family Physicians.

Senate Studied Cause of Gulf War Syndrome

The Senate Veterans' Affairs Committee has issued its report on Gulf War syndrome, stating that there is insufficient evidence to link exposure to nerve gas to the syndrome, as reported in the *American Medical News*.

This finding corresponds to the position of the Department of Defense, which determined that no single, specific causal link can be established. Possible explanations for Gulf War syndrome, according to the two agencies, include smoke from oil well fires, pesticides, and other toxins.

Oklahoma County and Tulsa County Alliances Participate in "SAVE Today"

On October 14, 1998, Alliance members from both Oklahoma and Tulsa Counties participated in a program to help victims of domestic violence. *SAVE Today* (Stop America's Violence Everywhere) was designated as an opportunity for Alliance members to deliver first aid kits (provided by the AMA Alliance) to area women's shelters.

Additionally, Alliance members participated in donation drives, seminars, and meetings that reinforced the message of stopping violence against women and children.



Oklahoma County Activities

For two months, Oklahoma County Alliance members collected items including luggage, socks and underwear to be donated to their adopted shelter, Citizens Caring for Children.

Members signed pledge sheets outlining their intentions to continue to fight the problem of domestic and family violence. Pledge sheets were sent to the national office as a symbol of Oklahoma County Alliance's commitment to this issue.

Six members went to the adopted shelter to deliver the donated items and first aid kits. Alliance members will deliver the remaining first aid kits to other shelters in Oklahoma County.

On October 14, Alliance members prepared approximately 50 care packages for college-aged students in need. Recipients of the care packages are Oklahoma students who had previously been in foster care.

The care packages included holiday decorations, stuffed animals, cookies, toiletries and books.

Oklahoma County Alliance members deliver care packages for vo-tech and college students through Citizens Caring for Children. Pictured (from l-r) are Nina Massad, Lakshmi Ramgopal, Charlotte Buntain, Diana Harbolt and Patty Pace (both of Citizens Caring for Children) and Anne Winzenread.

Tulsa County Activities

Tulsa County Alliance members began gathering items for their shelter, Domestic Violence Intervention Services (DVIS), at the Fall Kick-Off in September. At that time, members received collection bags for items to be donated for *SAVE Today*, and members' homes were designated as drop-off sites for donated items to be collected.

On October 14, 20 members participated in the Alliance meeting, which was held at the shelter.

During the meeting, a counselor from DVIS spoke to members about the effects of violence (experienced or observed) on children of different ages, as well as warning signs that indicate a child may live in a violent home.

In addition, members toured the facilities, which includes sleeping accommodations for 60 (beds and

cribs) and a 12-apartment complex that serves as a transitional facility for the shelter's program participants. By viewing the facilities, Alliance members were able to gain a better understanding of what items are needed by the shelter and for what purposes.

Thirty first aid kits were donated to the shelter, including one kit containing supplies for 50 people.

In addition to the activities of *SAVE Today*, the Tulsa County Alliance will be providing copies of the AMA workbook *Hands are not for Hitting* to the shelter.

Alliance members were encouraged to speak with their spouses about violence. Physicians are encouraged to discuss violence and abuse issues with their patients as part of the medical examinations they administer in their practice.

State Health Department Offers Free Vaccines for Eligible Patients

For many Oklahomans, the winter months mean cold and flu season. The Oklahoma State Department of Health is offering influenza and pneumococcal vaccines to physicians for use in the Vaccines for Children (VFC) Program. High-risk patients who meet the guidelines provided by the Department of Health are eligible to receive the vaccines free of charge. This way, physicians can provide necessary vaccines to their patients who may otherwise become significantly ill without the aid of such preventive measures.

Eligibility requirements are different for each of the two vaccines, and are outlined by the Department of Health. In order to be eligible for the free influenza vaccine under this program, patients must be between the age of six months and 18 years, and be in the following high-risk categories:

- Children with long-term heart or lung problems which caused them to see a doctor regularly, or to be admitted to a hospital for care during the past year.
- Children residing in institutions housing patients of any age who have serious long-term health problems.
- Children who, during the past year, have regularly seen a doctor or have been admitted to a hospital for treatment for kidney disease; cystic fibrosis; chronic metabolic disease, such as diabetes, anemia ("low blood"), or severe asthma.
- Children who have a type of cancer or immunological disorder (or use certain types of medicines) that lowers the body's normal resistance to infections. Because influenza might cause serious illness and complications in persons infected with the HIV virus which causes AIDS, these individuals should receive influenza vaccine.
- Children on long-term treatment with aspirin who, if they catch the flu, may be at risk of getting Reye's syndrome (a childhood disease that causes coma, liver damage, and death).

Patients under the age of two should not receive the pneumococcal vaccine. The vaccine is recommended for children two and older with the following conditions:

- Anatomic or functional asplenia, including sickle cell disease.
- Nephrotic syndrome.
- CSF leaks.
- Immunosuppression.

For additional information and ordering, call Stephanie Washington with the Maternal and Child Health Service—Immunization Division at 405/271-4073. Physician participants are asked to complete and submit a vaccine usage report to the Department of Health.

Chairman of the OSMA Council on State Legislation and Regulation Gets a "Pat on the Back"

Congratulations to Edward N. Brandt, Jr., MD, PhD, for being given a "Pat on the Back" by *The Sunday Oklahoman*.

On the Oct. 4 editorial page, Dr. Brandt was listed as one of only three Oklahomans honored by the Honor Society of Phi Kappa Phi. He was the only physician in Oklahoma recognized.

Oklahoma State Commissioner of Health Requests Physician Assistance in Reporting of Blood Lead Levels

Lead in the environment poses a significant risk to children. As a result, J.R. Nida, MD, Oklahoma State Commissioner of Health, has requested physicians report blood lead levels to the Oklahoma State Department of Health.

The blood lead level data, combined with demographic, socioeconomic, and housing data, will be combined to develop a statewide plan for childhood blood lead screening. Information on adult blood lead levels is being collected to identify children exposed to take-home lead, as well as determine occupations and industries in the state that expose adults to lead.

Data to report to the Department of Health includes the following: patient's name, address (including house number, street, city, state, zip code, and county), gender, date of birth, and race; health care provider's name, full address, and telephone number; blood lead test result, specimen type (venous or capillary), date collected, and date analyzed; and the name, address, and phone number of the laboratory performing the analysis.

Information sheets entitled *The Health Care Provider's Role in Blood Lead Surveillance Reporting* and *Oklahoma's Reporting Requirements for Facilities Performing Blood Lead Analysis* have been prepared for physicians and laboratories in the state. Each is available from the Department of Health.

These surveillance activities are being funded through a grant from the Centers for Disease Control and Prevention (CDC) and a grant from the National Institute for Occupational Safety and Health (NIOSH) within the CDC.

American Association of Clinical Endocrinologists Release Clinical Practice Guidelines for Use of Human Growth Hormone

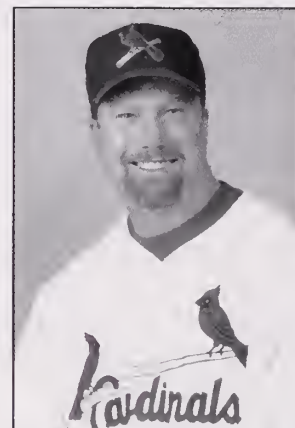
Citing the increased use of hormone supplements by individuals who receive media attention, the American Association of Clinical Endocrinologists (AACE) has issued a health alert and released new guidelines on the use of human growth hormone (hGH).

The AACE advocates use of human growth hormone only for specific medical conditions. In some instances, individuals have taken hGH to improve athletic performance, or to maintain their healthful youth and vitality, based on claims unsupported by scientific evidence. At a news conference held September 16, 1998, Dr. Stanley Feld, former president of the AACE stated, "In too many cases, those who truly *do not* need human growth hormone are getting it, and those who truly *do* need human growth hormone are not getting it."

The increased use of hGH is attributed, in part, to the availability of the substance. Until 1985, hGH was harvested from the pituitary glands of cadavers; however, when data revealed

that it was the likely source of contaminants that caused a fatal neurological disorder, Creutzfeldt-Jakob disease, physicians turned to synthetic hGH, produced by using recombinant DNA technology. Since 1985, the number of individuals (both children and adults) using hGH for either medical treatment or personal improvement reasons has increased. The FDA has approved hGH therapy for the treatment of hGH deficiency in adults and children, as well as for adults who suffer wasting associated with human immunodeficiency virus (HIV) or AIDS. Other uses of the substance (for instance, to counteract the effects of aging and enhance strength and vitality) are not scientifically proven.

The goal of the AACE is to promote responsible use of hGH. To this end, the new guidelines, *AACE Clinical Practice Guidelines for Growth Hormone Use in Adults and Children*, are available through the AACE web site, www.aace.com, or may be requested from the AACE, 1000 Riverside Avenue, Suite 205, Jacksonville, FL 32204.



Mark McGuire
St. Louis Cardinals

Recently, Mark McGuire of the St. Louis Cardinals made headlines, not only for his home-run record, but for his use of androstenedione, a substance that is the precursor product of testosterone and is not prohibited by Major League Baseball.

Androstenedione, which is used to provide a temporary increase in testosterone levels, is not a growth hormone, and is not used to treat growth hormone deficiencies in adults or children.

Surgeon General Satcher To Address Public Health Community in November

Assistant Secretary for Health and Surgeon General David Satcher will address representatives of the nation's public health community at the Healthy People Consortium meeting, Nov. 12-13, in Washington, DC. The Consortium will focus on the development of *Healthy People 2010*.

Healthy People 2010 is the third such project of its kind. In 1979, the first set of national health targets was published; the current set of objectives, *Healthy People 2000* (released in 1990), has been used as a basis for monitoring and tracking health status, health risks, and use of preventive services. The *Healthy People 2010* docu-

ment will discuss such issues as healthy behaviors, the promotion of healthy and safe communities, improving systems for personal and public health, and prevention and reduction of diseases and disorders.

Currently, individuals and organizations alike are able to comment on the *Healthy People 2010* document. *Healthy People 2010: Draft for Public Comment* was released in September, and will be available for public input until Dec. 15, 1998. A copy of the draft may be purchased by calling the Office of Disease Prevention and Health Promotion Communication Support Center fax-back system at 301/468-

3028, or accessed through the internet at <http://web.health.gov/healthypeople>. In addition to accessing the document through the internet, individuals are also able to submit their comments electronically.

Five regional meetings have also been scheduled as opportunities for public discussion, including meetings in Chicago (Nov. 5-6), Seattle (Dec. 2-3) and Sacramento (Dec. 9-10). Information on the meetings can be accessed through the internet address above, or by calling 800/367-4725.

The final version of *Healthy People 2010* will be released in January 2000.

LETTERS TO THE EDITOR

Pathology of Boyhood Behavior

TO THE EDITOR:

One of my sons was recently diagnosed with attention deficit disorder (ADD). I just thought that he was "all boy," full of life and boyish antics that sometimes got him in a bit of trouble. At first I resisted the "diagnosis" because I didn't want a label attached to him, and then I was labeled as "uncooperative" when I scored him normal on a questionnaire.

So in the face of overwhelming opposition by a team of counselors, teachers, psychologists and my wife (also an educator), I gave in. My son was placed on medication that has calmed him down somewhat, although he seems a lot less spontaneous when I take him to school in the mornings. He is also receiving some extra attention from the teachers at school, which was probably what he needed anyway.

The whole episode got me to thinking about the idea of boyish behavior and ADD. Are ordinary boyhood traits now considered abnormal because of the popularity of the ADD diagnosis? Have counselors and schools, in their pursuit of classroom order and gender equity over-diagnosed boys as having ADD?

Statistics show that ADD is the fastest "growing" disability, with the ranks nearly doubling in the past five years. According to 1996 figures, 2.6 million (4.36 percent) kids were in publicly-funded learning disabilities programs. In 1977, only about 800,000 (1.8 percent) of kids had been diagnosed with learning disabilities.

Interestingly, 80 to 90 percent of all ADD cases are boys. Either we are in the midst of an epidemic, or ADD is being over-diagnosed. Perhaps the fact that most teachers, counselors and child psychologists are female explains why the vast majority of ADD cases are male.

Therapist Michael Gurian has commented: "The country is making the argument, without often realizing it, that boyhood is defective." Gurian has written that there is no inherent flaw at the center of masculinity. Neither boys nor men are intrinsically defective.

Boys are naturally more aggressive and physical than girls ("aggressive" does not equal "violent"). The effects of testos-

terone on the brain, which accounts for significant differences in male and female behavior, are most likely at the core of the misunderstanding.

Testosterone is the most powerful force in the life of a male fetus and a boy. It defines who he is. It accounts for why males are more aggressive, have more body muscle than fat and have higher sex drives (to fulfill their biological role in reproduction).

I remember my well-intentioned wife deciding to not give our boys toy guns. Their response was to simply construct homemade weapons. That's testosterone at work. A large body of research has uncovered significant physiological differences in the brains of males and females. Many of the problems that males and females have in relating to one another are based on these biological differences.

A recent newspaper article noted that critics object to the "phalanx of teachers, counselors and administrators who insist on a medical diagnosis or a clinical classification when boys refuse to nap, sit still, fail to fulfill their ill-defined potential, scrap with their peers or otherwise defy authority."

Diane McGuiness, a Florida child psychologist, has commented that viewing these boyish traits as disabilities has, "pathologized what is simply normal for boys."

The past 30 years of "gender equity" in making schools "fairer" for girls has sometimes been at the expense of boys. An intolerance of boyish behavior by schools is one result. Boys are different creatures than girls. Testosterone guarantees the difference. In society's quest for gender equity, these differences have too often been ignored. To pathologize boyhood behavior is to do boys a great disservice. Boys need to be appreciated for what they are. We cannot help them grow into the men society needs by labeling them dysfunctional.

Joe D. Haines, MD

Editor's Note: The May/June issue of the *Journal* printed a review article on Attention Deficit Disorder from the AMA Council on Scientific Affairs.

Jewel of Medicine

TO THE EDITOR:

Medicine has a great heritage that has served our patients well until recent years. However, we are relinquishing the heart of medicine for the expediency of corporate managed care and its profit.

In these days of untruthfulness and mendacity in our highest governmental office, our confidence has been affected in many ways. For example, in advertising, whether it be automobiles, household products, or whatever, the product may not necessarily be found to be exactly as it had been represented in advertising. This, I suppose, is a "sign of our times" in which truth seems to be irrelevant, and anything goes in human endeavors.

In the practice of medicine this tendency has not escaped the eye of scrutiny. The word doctor is derived from the Latin *docere*, meaning to teach. This term, throughout ages past, has represented one who was able to expound authoritatively on a subject, by reason of his skill and training. In the case and point, I am talking about doctors who as it should be are teachers to their patients. They instruct them in matters of medical concern and serve as counselors in a great many situations. The counseling of the patient appears to be a disappearing practice. Many medical school graduates after training are going into large medical managed care groups where that practice is not of primary concern nor time allowed for it in the doctor's office.

To myself and others who practice traditional medicine, this relationship is the great "Jewel of Medicine." The traditionalist's practice revolves around a sharing-caring relationship between doctor and patient.

In today's large corporate-owned HMOs, because of sheer numbers, little doctor-patient contact is available because of rationed medical care. In this setting many patient needs are unmet.

When will we awaken and see from whence we have come? What a high price is being paid for what we have in a large part of medicine today.

James D. Green, MD

Changing Insurance

TO THE EDITOR:

As a long-time supporter and charter subscriber to PLICO Health, it is my duty to report to the OSMA that I have been forced to change carriers. When PLICO Health was formed, its primary purpose was to provide health care benefits for its physician membership and their employees. Not only were the healthy insured, but the "unhealthy" employees and physicians were also included. This increased monthly premiums but no one cared since PLICO was still reasonable and cost less than many commercial carriers. As is the case with so many institutions, there is a loss of sensitivity and perspective as the bureaucracy increases. Reasons and purposes for existing are subjugated to "ways to save money." It is most ironic that healthy physicians and their staff can now be denied continued membership because the practicing healthy physician has reached the age of 65.

Although many (perhaps most) 65-year-olds relish the thought of being eligible for "Medicare" (because of its cheap premiums subsidized by the working population), I personally find it repugnant.

Therefore I requested that I continue on with my regular PLICO policy as long as I remained an active practitioner. I was told that such a plan was available as long as I had 20 persons in my group.

I said I had only 5 (is 20 a magical number?) and was told in no uncertain terms that to insure me would cost PLICO "hundreds of thousands of dollars" so unless I chose Medicare it was "No Way, Jose." Such a denial was, of course, ludicrous, non-sensical, and irrational.

Does a physician in a group of 20 have better health than one in a smaller group? When PLICO was formed, group size was not a question, so why is it now? None of this makes any sense. Therefore, it is with a great feeling of betrayal that my staff and I must change to Blue Cross—Blue Shield Choice. Not only do they offer the policy that PLICO denies, but does so openly, pleasantly and with competitive premiums. Thus it appears we have gone the full circle: our PLICO is now the arrogant, aloof, elitist company and the commercial company is my friendly caring institution.

I'm sure the directors of PLICO Health will advance myriads of reasons "why" when they see this letter, but the fact remains—if BC-BS can do it, so could they if they choose. Wouldn't it be refreshing to hear a director say, "Gee fellows, we were wrong in excluding groups under 20. Please allow us to correct our discrimination." Fat chance!

David W. Foerster, MD

Great Journal Article

TO THE EDITOR:

Greetings! My career in aerospace and occupational medicine had its share of "administrative medicine." Writing clearly takes time out of any busy schedule, but I commend you for letting Jeffrey Wolfe provide his perspective on the Social Security disability determination process, and letting him give his spin on what writing clearly means!

J.D. Hordinsky, MD

Letters to the Editor do not necessarily reflect the editorial policies or beliefs of The Journal or the Oklahoma State Medical Association.

All submissions are subject to editing. Address your letters to:

Ray V. McIntyre, MD
OSMA Journal Editor-in-Chief
601 W. I-44 Service Road
Oklahoma City, OK 73118

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(Signed: Kathy Musson, Assoc. Executive Director)

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DEATHS

Chester K. Mengel, MD 1915 - 1998

Chester K. Mengel, MD, died September 14, 1998. Mengel was born in McAlester in 1915. He attended and received his medical degree from the University of Oklahoma School of Medicine. For 32 years, he practiced at the Veterans Hospital in Muskogee, and later entered private practice at the Muskogee Bone and Joint Clinic. He was certified by the American Board of Orthopedic Surgery. Mengel was a member of the American Academy of Orthopedic Surgeons, was past president and member of the Oklahoma State Board of Orthopedic Surgeons, became a life member of OSMA in 1985.

Henry J. Freede, MD 1918 - 1998

Henry J. Freede, MD, died September 9, 1998. Freede was born in Oklahoma City in 1918 and attended the University of Oklahoma School of Medicine. After receiving his medical license in 1943, Freede entered the Army Medical Corp, serving as an orthopedic surgeon in the AP Theater on Guam in World War II. During his military service, Freede attained the rank of Major and received the Asiatic Pacific Service Medal and the Victory Medal. He trained at the Robert Jones and Agnes Hunt Hospital in Oswestry, Shropshire, England. In 1949, Freede became a Teaching Fellow in orthopedic surgery at Harvard. Freede returned to Oklahoma City where he practiced for 47 years. He was certified by the American Board of Orthopedic Surgery, and he served on the staff of Baptist Hospital, Mercy Hospital, St. Anthony's Hospital, University Hospital, and the Bone and Joint Hospital. Freede was a life member of the Oklahoma County Medical Society, the Oklahoma State Medical Society, and the American Medical Association.

Richard E. Carpenter, MD 1917 - 1998

Richard E. Carpenter, MD, died August 30, 1998. Carpenter was born in Bartlesville in 1917, and attended the University of Chicago Medical School. Carpenter was in private practice in Oklahoma City from 1949 to 1990, and served as Captain in the United States Air Force during the Korean War. After retirement, Carpenter continued to work in the neurology clinic of Veterans Hospital until 1996. He served as Emeritus Clinical Professor of Neurology at the University of Oklahoma Health Sciences Center, Past Chair of the Department of Medicine at St. Anthony Hospital, and Past Chair of the Department of Neurology at St. Anthony Hospital. Carpenter was a life member and past president of the Oklahoma County Medical Society, and was a member of the Oklahoma State Medical Association, American Medical Association, American College of Physicians, and American Academy of Neurology.

Douglas D. Leatherman, MD 1927 - 1998

Douglas D. Leatherman, MD, died August 21, 1998. Leatherman was born in Stafford County, Kansas, in 1927; he came to Oklahoma to attend Phillips University, then went to the University of Oklahoma School of Medicine, where he received his medical degree. Leatherman served with the 235th Hospital Train during the Korean conflict. His years of medical practice include 23 years in family practice in Waynoka and Weatherford and several positions within Custer County at the Department of Health, Mental Health Commission, and as county coroner. Leatherman held a fellowship in surgery at the University of Oklahoma and was a member of the American Medical Association, Oklahoma State Medical Association, and Custer County Medical Society.

Edwin R. Shapard, MD 1918 - 1998

Edwin R. Shapard, MD, died July 28, 1998. Born in Fort Smith, Arkansas in 1918, he received his medical degree in 1944 from Tulane University. From 1944 to 1954, Shapard served in the United States Navy. He joined OSMA in 1954 and was granted life member status in 1991.

David C. Ramsey, MD 1919 - 1998

David C. Ramsay, MD, died May 22, 1998. Ramsay was born in June 1919 in Vincennes, Indiana. He received his medical degree in 1945, and served 20 months active duty in the United States Army Reserve during World War II where he achieved the rank of Captain. Ramsay, who specialized in orthopedic surgery, became a member of OSMA in 1951 and was granted life member status in 1990.

IN MEMORIAM

1997

Fred Thomas Fox, MD	December 6
LeRoy Long III, MD	December 21
Thomas Jefferson Lowrey, MD	December 21

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Byron Fremont Smith, MD	February 21
Emil Maurice Childers, MD	February 22
Burton Bonnard McDougal, MD	February 23
Robert T. "Tom" Cronk, MD	April 15
Jack Paul Enos, MD	April 19
Paul Arthur Barnett, MD	April 28
Allen B. Eddington, MD	May 20
David C. Ramsey, MD	May 22
William H. Reiff, MD, FACS	May 25
Jerry L. Puls, MD	June 5
James M. Behrman, MD	June 5
Charles N. Talley, MD	June 14
Thomas C. Points, MD, PhD	June 15
Charles M. Cameron, Jr., MD	June 22
Philip G. Tullius, MD	July 4
Louis H. Charney, MD	July 8
Ralph L. Walker, DO	July 11
Brook S. Bowles, MD	July 20
Edwin R. Shapard, MD	July 28
Paul L. Masters, MD	August 6
Douglas D. Leatherman, MD	August 21
Richard E. Carpenter, MD	August 30
Henry J. Freede, MD	September 9
Chester K. Mengel, MD	September 14

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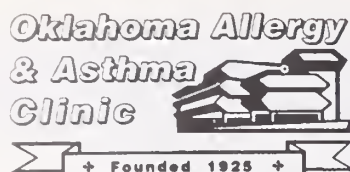
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The medical students and residents of today are our doctors of tomorrow; likewise, their spouses, hopefully, will be our fellow Alliance members. A wonderful way to begin educating these young spouses about our organization is to sponsor them as members of the AMA and State Alliances.

This year we are asking Alliance members across the state to help us sponsor these spouses through donations of \$12 to "Sponsor a Spouse." Of this amount, \$10 goes towards AMAA dues and \$2 for state dues. Though we will be sponsoring these spouses throughout the year, our goal is to get as many as possible sponsored soon so that they can begin to get mailings and other AMAA information early in the year. As a matter of fact, the AMAA has a new publication this year, *Horizons*, designed specifically for resident physician spouses.

Please help us in this worthwhile effort by sending your check payable to the OSMAA for \$12 to Andrea Jones, OSMAA Vice President of RP/MSS, 3316 Hickory Stick, Oklahoma City, OK 73120.

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Leslie Samara
OSMA Vice President for Members-At-Large



Do you live in a county without an organized Alliance? If you answered yes to that question, you can become a member of the OSMA Alliance as a member-at-large. By paying dues of \$38, you will be demonstrating your commitment to the medical community and its role in American society.

Membership in the AMA Alliance and the OSMA Alliance enables you to be part of the solution by participating in:

- SAVE (Stop America's Violence Everywhere) — a nationwide grassroots initiative aimed at combating violence through a wide range of community-level programs
- SAVE a Shelter (part of the Save program) — physicians' spouses across the nation are working with physicians to adopt abuse shelters, transition homes, and other services for abuse victims
- Public health initiatives impacting the health of children, teens, and young adults
- Leadership training and resources
- New program development based on the changing social issues faced daily
- AMA Foundation support to assure excellence in physician education through fund-raising.

As a member of the AMA Alliance you will receive:

- *AMA Alliance Today* — a quarterly journal designed to keep you informed and up-to-date on public health issues, legislation, membership programs and projects
- Members-only resources developed as a series of bibliographical information on cutting edge issues such as Child Abuse Prevention, Eating Disorders, Drug Use and Abuse, and Medical Family Support. Discounts on all AMA Alliance publications including the acclaimed *I Can Choose* and *Hands are not for Hitting*
- Savings on insurance plans, car rental programs, and hotel discounts.

Won't you join the 50,000 physician spouses who support the AMA Alliance? Join with others and gain access to a peer network beyond compare, resources that will keep you abreast of the changes that impact the medical profession, and legislative advocacy through the AMA's web page and grassroots Hotline.

For more information or to join the Alliance as a Member-At-Large, contact Leslie Samara, OSMA Vice President for Members-At-Large, 1601 Bedford Dr., Oklahoma City, OK 73116.

THE LAST WORD

NEW YORK ACADEMY OF MEDICINE

NOV 20 1998

Lecture Series Concludes With Cardiovascular Disease Findings

This fall, the Oklahoma Medical Research Foundation (OMRF) began a four-part public lecture series entitled, "From Bench to Bedside: Biomedicine at the New Millennium." The fourth and final lecture, to be presented by Dr. Charles Esmon on Nov. 10, will address the latest findings in cardiovascular disease. Earlier this year the OSMA Public Health Committee identified cardiovascular disease as a primary concern for Oklahoma physicians and their patients.

"From the President" Feature Added to AMA Web Site

The AMA has developed a section on its web site to serve as the primary source of news and information about its president, Nancy W. Dickey, MD. The site includes information about the agenda, viewpoints, and activities of Dr. Dickey as she leads the AMA through 1998 and 1999. This portion of the site became operational in September and will be used as a forum for future presidents to communicate their messages to a wide audience. The "From the President" page can be found at <http://www.ama-assn.org/presiden.htm>.

Governor Keating Recognizes Need for Prostate Cancer Awareness

Governor Frank Keating has signed a proclamation, dated September 16, 1998, encouraging men to be aware of the need for screening for prostate cancer. Prostate cancer is the most commonly diagnosed cancer among men in the U.S. and the second leading cause, behind lung cancer, of cancer death (according to the Memorial Sloan-Kettering Cancer Center, www.mskcc.org). To underscore the importance of prostate cancer screenings, members of the Oklahoma State Urological Association (OSUA) will perform screenings for legislators through November.

Oklahoma Physicians Appointed by Keating

Two new members of the Board of Medical Licensure were among the many appointments made by Governor Frank Keating last month. Named to the Board of Medical Licensure were John C. Leatherman, MD, a family physician in Woodward, to serve a term of eight years, and James Gormley, MD, an Oklahoma City pediatrician, to serve the remaining term of Frederick Cason, MD.

Jeff Jones, MD, Paul Orcutt, MD, John Stuemky, MD, Thomas Tryon, MD, Michael Stratton, DO, and Kim Floyd, DO, were all appointed to the Advisory Task Force on SoonerCare. Rodney Huey, MD, was appointed to the Oklahoma Telemedicine Advisory Council.

National Health Care Expenditures Could Double in Next Decade

The American Medical News reports that government economists, who studied the rate of growth of health spending, estimate national health care expenditures could double to \$2.1 trillion in the next decade. This increase comes on the heels of five years of relative stability of spending on physician services. Data from the Health Care Financing Administration shows that in 1970, the nation spent \$13.6 billion on physician services; in 1998, spending is expected to reach \$221 billion; and by 2007, spending is estimated to reach \$427 billion.

Doctoral Program in Cell Biology Now Offered

The University of Oklahoma Health Sciences Center is currently accepting applications for the first graduate class in cell biology, for the fall 1999 semester. This is a doctoral-level program and is the first graduate program of its type at a state institution of higher education. Allan Wiechmann, associate professor and director of the new graduate program, said, "Research and training in cell biology is one of the fastest growing areas in the biomedical sciences."

AMA House of Delegates to Meet

The AMA Interim Meeting of the House of Delegates will be held Dec. 6 through Dec. 9, 1998, at the Hilton Hawaiian Village in Honolulu, Hawaii. Approximately 30 OSMA members will attend, including several medical students.

OCVO Contracts with New Clients, Doubles Reappointment Applications

The Oklahoma Centralized Verification Organization (OCVO) has contracted with Paragon, Tulsa Regional, Rogers County, and Lake Region Health Alliance in Wagoner. OCVO has also approved a special project for Intensiva of Oklahoma City.

As of August, OCVO processed 883 initial applications for clients, reappointment applications processed through August total 2,439, compared to 1,073 at the same time last year.

"When moving forward toward the discovery of the unknown, the scientist is like a traveler who reaches higher and higher summits from which he sees in the distance new countries to explore."

Louis Pasteur (1822-1895)

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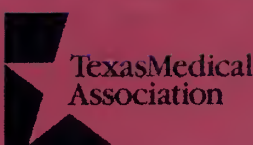


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M. Joe Crosthwait, MD, is chosen as one of Oklahoma's "Leaders in Medicine." Photo by Robert H. Taylor.
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On the Compleate Physician

The word "complete" is commonly given the meaning "entire," "perfected," or "finished." But the archaic English word "compleate" as exemplified in Izaak Walton's classic *The Compleate Angler* carries the meaning of "everything necessary for the task at hand." In this sense, to be a "compleate physician" is a desideratum coveted by many physicians.

"Compleate physicians" may have been numerous in the past when geographic isolation plus transportation and communication difficulties forced most patients to rely solely on any physician who might be present in their hamlet. Nowadays, however, there are **no** "compleate physicians" in the sense that one physician can supply everything necessary to treat any patient. Rather, the marvelous medical advance of the scientific era has produced many diagnostic and therapeutic specialists and sub-specialists. Presently, the transport and communications links are virtually unlimited.

And now, every physician's innate desire to be "compleate" is compromised by the intellectual framework of the practice. Every generalist is constrained in treatments by the ready availability of specialist therapists. Every specialist is constrained in patient intake by the availability of generalists who are expert in patient assessment and triage.

Thus the training experience of the physician largely establishes the perimeter of the practice. But the innate, almost instinctive, wish of the physician to be a "compleate physician" for some patients sometimes results in sticky situations.

The generalist may be tempted to do therapies that could be more efficiently performed by the specialist, and the specialist may be tempted to proffer general medical care outside of the specialty.

Today's competitive insurance schema and chaotic medical economics encourage some inappropriate patient/physician contracts, as the patients that provide income may be experienced (perhaps unconsciously) as a possession. The possessive "**my** patient" and "**your** patient" and "**our** patients" are so commonly heard as to be the usual. And yet, patients always belong to themselves, regardless of any physician's hidden wish to "own" them for income or the dominance resultant from being "their doctor."

In the inevitable crunches that come up in daily practice, we physicians must always decide the options for the benefit of the patient. Whether to treat, refer, or do an assessment should always be determined by a medical judgement of what the patient really needs. It cannot be decided on the origin of a referral, or whom the insurance will pay, or whether we "can get away with it."

In our era, the truly compleate physician places the primacy of the patients' welfare first.

Ray V. McIntyre, M.D.

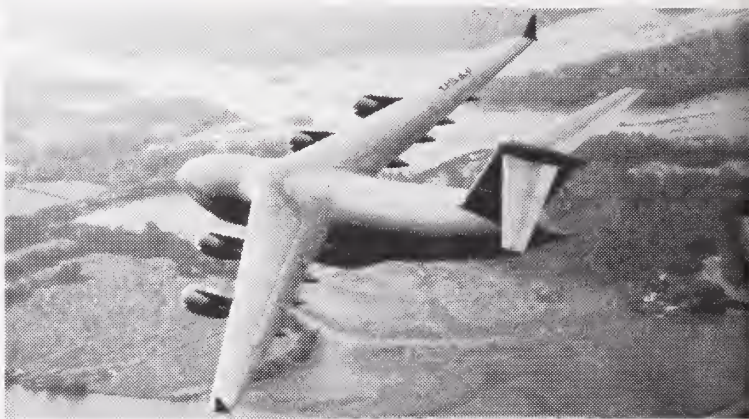
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"...we physicians
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PRESIDENT'S PAGE

A Time of Hustle and Bustle

December and the holidays, a time of

hustle and bustle, good will and merri-

ment. Schedules are filled with annual

social events where

friends and colleagues

gather. During these

events you are asked to

bring up the topic of

peer review and its

impact on your practice.

Many of us remember

the days before peer

review committees and

the timidity with which

it was approached. It

was a new and awkward procedure to evaluate

the patient care by a colleague. With guidance,

leadership and many educational publications

and seminars, hospital staff physicians became

adept at the procedure of peer review.

This spring the Oklahoma Supreme Court

ruled that "staffing, credentials and peer

review records" relating to individual physi-

cians are not exempt from discovery by exist-

ing state law. Oklahoma is one of at least four

states that have had recent court rulings on the

issue of quality improvement of patient care.

Your Board of Trustees, in developing a solu-

tion to this question, has decided to participate

in a Coalition for Quality Patient Care, joining

the Oklahoma Hospital Association, the

Oklahoma Osteopathic Association and other

interested parties to find statutory protection

from discovery of information generated by

hospital peer review committees. Information

in a physician's hospital credentialing file is

also discoverable. Information about the

Coalition and this process will be distributed

in the next few weeks. Concern has been

expressed about the development of peer



review committees composed of physicians from other states, or external, instead of the current internal group. Your input and involvement in this process is essential.

In addition to the holiday parties, this season lends itself to remembrances and discoveries. For those who are home for the holidays, what does that "picture print" look like? Memories of family rituals abound. Decorating the house, polishing the silver and preparing the table for the relatives and guests were part of the tasks. Religious gatherings and familiar prayers were integral to the season. Sharing our gifts with others by way of singing or taking items to those in need were another part of the holiday fare. A hospital tradition included one young girl distributing "treats" to the patients while a harpist played music. A favorite memory is the sneezing bear toy, complete with his own box of tissues that a special uncle sent from the East Coast. One year we had a surrey with the fringe on the top that we rode around in during the pre-meal festivities. A special holiday gift came during a time of difficulty when a family member was ill and unable to participate. One of the gifts was a collage of photographs. She was with us in spirit and pictures.

The season allows for a time of reflection, thinking of others, and reviewing the year. Bittersweet memories and family rituals are often part of this time. As caregivers, we participate in the joy of sharing and comforting the sick. Best wishes for a happy holiday.

Mary Anne McCaffree

Mary Anne McCaffree
OSMA President

"As caregivers,
we participate
in the joy of
sharing and
comforting
the sick."

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A Story for the Season*

Robert O. Raulston, MD

It was Christmas Eve a few years ago, and I was comfortably settled at home with my family. An associate was on call for me and I was assured an uninterrupted evening of assembling toys and the excitement of a Christmas morning with my three small children.

"No way," I told the organ transplant coordinator who called. She told me that a lady had died in a town in northern Oklahoma and the family had wished to donate her kidneys and heart to others who needed them. That's where I came in. I was told my associate was tied up, others were unavailable, and I was the only person who could surgically remove the organs for transplantation.

I was determined not to miss my children's Christmas. I was perfectly content right where I was. I told her that I, too, was unavailable.

I immediately thought of the significance of my words. Somewhere, two people had waited a long time for a Christmas present just like this: a life-giving kidney. I was torn between the needs of my family and those of unknown persons for whom this could be the most important Christmas in their lives.

Yes, she assured me, I could be back by morning. Everything was ready to go. The heart would go to Salt Lake City and the heart team was on the way. A helicopter would pick me up anywhere I wished. I would be back home before daylight. She promised I would. No, there was no way I would get stranded far from home awaiting another transplant team, a tissue match, or any of the other delays that sometimes happen. And, yes, she really had tried every other possibility.

I agreed to go, kissed my wife, promised to be back before the children were up, and drove to the top of the St. Anthony parking garage to meet the helicopter. Within a minute of my parking there it swept in from the south and landed nearby. I sadly climbed aboard and took off into the cold night.

I don't remember much of the trip north, but I remember the snow being blown away from the parking lot by the chopper blades as we landed by the small hospital after midnight. I was surprised by how many employees were there to greet me, and I later learned several of them were there voluntarily after their shift to see their Christmas Eve's work completed.

As soon as I got to the operating room I got the predictable news: the heart team was late. It seems that Robert Redford was late getting to Salt Lake City from California, and the team had waited for his jet to bring them to Oklahoma. They now really were on their way.

It was a tense, quiet wait. There were concerns about the machines and fluids that were keeping the vital organs supplied with oxygen until they could be removed. We adjusted

them, we occasionally chatted, but mostly we each sat and thought our own private thoughts.

Finally we heard the jet had passed Wichita, and I decided to begin the surgery. I felt very lonely as I worked. The staff had never helped with such surgery, but was great. Then at just the right time, in walked four or five masked and gowned persons who introduced themselves and immediately set about removing and preparing the heart.

Soon they were gone, it was quiet again, and I was sure that by the time I finished my work and got home, the children would have awakened and opened their presents.

When we boarded the helicopter it was still dark and the stars shown brightly, but as we rose above the corner of the hospital we could see the earliest pink dawn of Christmas to the east.

I treasure the memories of the next hour or so and can never adequately express the sights, thoughts, and feelings experienced.

At first the ground was dark. The snow was visible only around the yard lights that were scattered as far as I could see. Colored Christmas lights could be seen around the farm houses and along the deserted main streets of the small towns. I imagined this was how Oklahoma looked from a sleigh pulled by reindeer and half expected to spot one flying alongside somewhere. I considered again the precious Christmas gifts aboard our "sleigh." The eastern sky was glorious as it can only be in Oklahoma, and the snow was then visible covering the fields and buildings. I saw lights coming on in the homes below, and imagined countless children rushing to the cedar Christmas trees in the living rooms. I wondered about the families of the drivers of the few trucks scurrying along I-35.

At Guthrie I called home on a cellular phone. The children were just awake. I said I would be there as soon as I could.

The helicopter safely landed by my car, I quickly drove the deserted streets, and rushed in the door just as the family, bird dog Kate and all, came down the stairs.

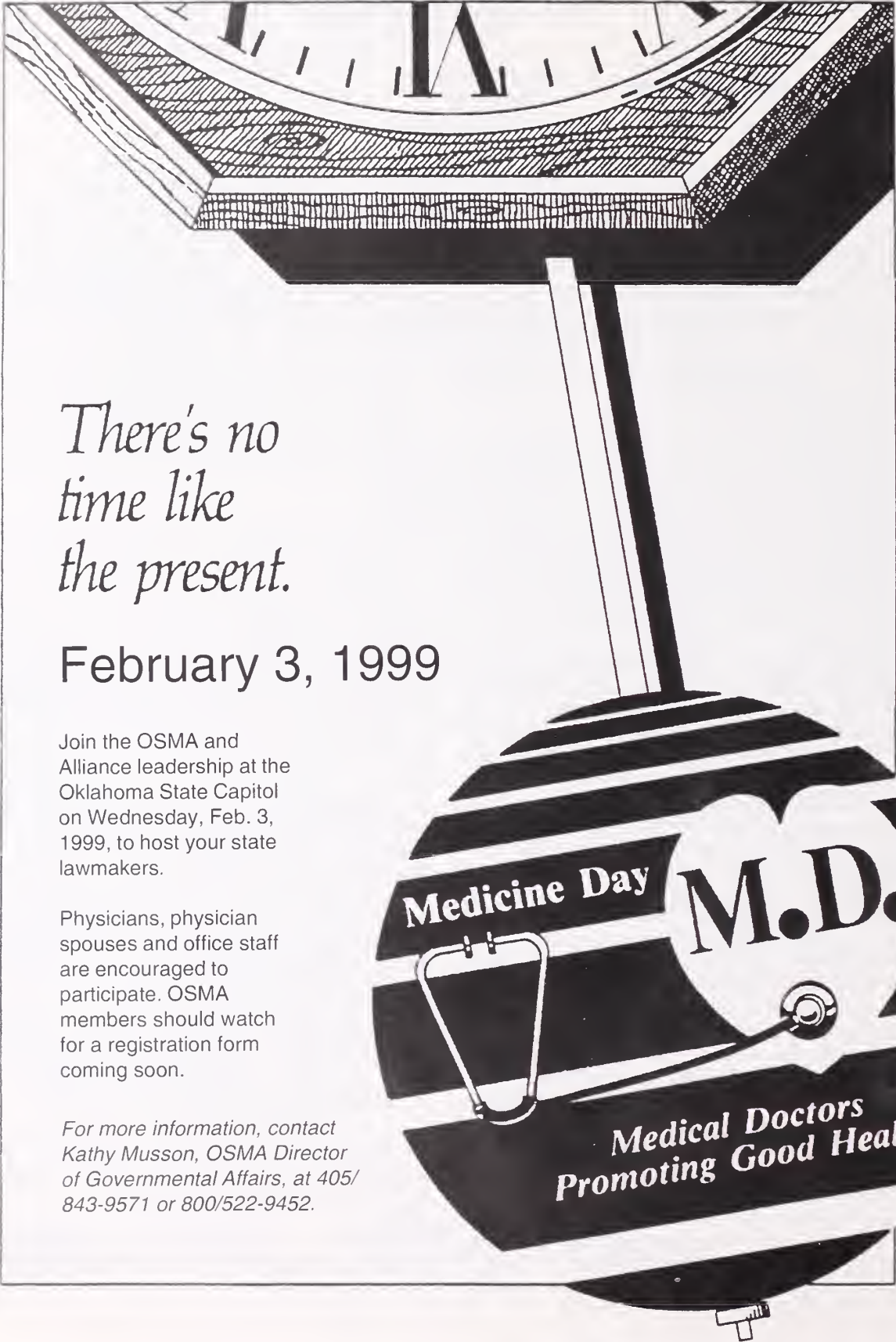
I did spend the day with my family. Other doctors transplanted the kidneys. Sometime later I read a touching essay written by a local Catholic priest about the greatest Christmas gift he ever received. He got his kidney that day.

I have never regretted the trip.

* This story first appeared in the December 1997 issue of *LifeShare*, the newsletter of the Oklahoma Organ Sharing Network. It is reprinted with permission.

The Author

Robert O. Raulston, MD, is a urologist in private practice in Oklahoma City. He is also clinical associate professor of urology at the University of Oklahoma College of Medicine.



*There's no
time like
the present.*

February 3, 1999

Join the OSMA and Alliance leadership at the Oklahoma State Capitol on Wednesday, Feb. 3, 1999, to host your state lawmakers.

Physicians, physician spouses and office staff are encouraged to participate. OSMA members should watch for a registration form coming soon.

For more information, contact Kathy Musson, OSMA Director of Governmental Affairs, at 405/843-9571 or 800/522-9452.

LEADERS IN MEDICINE



M. Joe Crosthwait



Story by Richard Green



he money men sitting across the table were offering to make the young man's dreams come true.

They were handing him leadership of a major stage band, a la Tommy Dorsey, and the financial support to keep the band going for 1946-47. This was an opportunity not just to perform across America, but to develop a great stage band. He would be selecting the musicians and singers, developing the band's repertoire, arranging many of the numbers and playing lead sax.

To be in this position had been Joe Crosthwait's ambition since he was a 15-year-old clarinet and sax player with Papa Beau's band, playing weekends at an Oklahoma City speakeasy during the last bleak years of the Great Depression.

Just one thing, though, the investors told him. The current bandleader, Saxie Dowell, would have to go. Since his drinking had gotten out of hand, Saxie was no longer capable of running the band. They told Joe that they thought enough of him to invest \$50,000.

Joe looked hard at the men and said it straight out: "It's out of the question. I won't dump on Saxie." The investors must have been shocked, thinking they were giving this guy an opportunity of a lifetime and he turns them down. "Look, Joe, without this money, the band's done anyway," one of the men said.

"I know that, but Saxie's my friend," said Joe. "He gave me a big break in my career and I won't s--- on him."

Before Joe left the meeting place, he had already decided that he, too, was through. Just a few minutes before, he had come to a "Y" in the road — the Mount Everest of Y's — and he had burst his own bubble without blinking. If this is what it takes to make it in the music business, he thought, then to hell with it.

He no longer had that dream, but he still had his integrity. He also had a new wife and a surgeon father-in-law who was intent on making the new member of the family into a physician.



What a strange turn of events: Entering college at age 24 to see if he had the right stuff to get into medical school. At that point, Joe wasn't sure. His Capitol Hill High School grades had been so bad that they had passed him on just to be rid of him. But he had grown up in the Navy and been successful in the music business. His father-in-law got him an interview at Rutgers University and the admission officer was impressed. But when he examined Joe's high school transcript, he flinched momentarily and accepted him — in the music school.

So, he took his wife, Lee, back to Oklahoma and got enrolled in a college that only cared about the color of their scholar's money. Now that the surgeon was getting his way, he was generous with financial support. Furthermore, as a musician living in Oklahoma City, Joe was a big fish in a small pond. He formed his own six-member band and promptly captured the plumb entertainment spot in town, the Rainbow Room, high atop the old First National Bank building.

Meanwhile, he realized quickly that he could do very well in college, and he did. He now could spend a lot of time studying because he didn't have to woodshed on his sax much to be more than adequate in Oklahoma City. Unlike New York, where young musicians hung out like wolves, waiting for band sidemen to show some weakness, his hometown was a safe haven in more ways than one. But Joe did have something to prove. Just because he was making his grades in college didn't mean he could get into medical school, let alone emerge with an M.D. He had something to prove to himself and a handful of others.

He wanted to show Lee that her trust in him was warranted. And he wanted to show his father-in-law that he had been wrong about him. When he and Lee had fallen in love in New York in 1947, her father had been against his daughter marrying "a damn musician." "The man," he said, "doesn't have a pot to piss in." Joe also thought of his own father, dead now these 10 years. Eli Joe Crosthwait had put a clarinet in his son's hands when the boy was nine years old and demonstrated over the last four years of his life that he expected his son to practice hard and get ahead. Joe had done so, and he would again.



Joe grew up near a tough area in south Oklahoma City known as Hell's Kitchen. As the name implies, he was exposed to the influences and temptations that brought low many of his friends and classmates. "By high school, many of them were either in prison or on the way," he says.

Though membership in a street gang was available to Joe, his father, Eli Crosthwait, had



Dr. Crosthwait holds a family portrait of him and his parents.

other plans for him. When other boys were just getting started as petty criminals and fighters, Mr. Crosthwait got Joe a clarinet and weekly music lessons and made it abundantly clear that he was to practice at least one hour a day. "When Dad came in from work every evening, the first thing he'd ask my mother was, 'Has Joe practiced?' If I had, he was talkative and jovial. If I hadn't, he wouldn't speak to me until I'd gotten in my hour."

In junior high, Joe was practicing because he wanted to, and Eli, who greatly admired musicians, introduced his son to some of the local standouts who managed to get gigs even in the early years of the Great Depression. At age 12 or 13, Joe was showing real promise on the clarinet and alto sax. In musical parlance, he had "it" (a knack and a good ear), but his talent had to be developed with drive and discipline. At this critical point, when Joe was 13 in September 1936, Eli developed strep throat. He recovered but became ill again. A doctor diagnosed diphtheria, but it was apparent that his kidneys were shutting down.

By the time that death was a virtual certainty, Eli could no longer communicate. He died in January 1937. In retrospect, Joe knows that the streptococcal bacteria probably brought on Bright's disease, and that the diphtheria antitoxin that was administered probably hastened his father's death. In any event, the family watched

helplessly as the patriarch slipped away. Although Joe was only 13 when his father died sixty years ago, he remembers that it was "a long, miserable death."

The death of a parent is one of the reasons (albeit often unconsciously) that some people go into medicine. This may have been so in Joe's case, but in the immediate aftermath of his father's tragic passing, music became his life. Never much of a student, he gave up studying altogether and took his academic lumps. Though he worked various jobs to help his mother make ends meet, by the age of 15 he was such a good clarinet and alto sax player that he was hired by Loren "Papa" Beau to play with his band on weekends.

The place was Brown's on South Shields, a dive that attracted bootleggers, deputy sheriffs, and men cheating on their wives. The gig was 9 to 5, Saturday evening into Sunday morning. The other members of Papa Beau's band were in their forties or fifties and with the exception of Joe and Papa Beau himself, were all hard drinkers. Joe says that he learned to play all of the instruments in the combo by necessity, "These guys would play until they passed out. When the drummer fell off his stool, I'd switch to drums."

After several such incidents, Papa Beau said he would fire the next man caught drinking during the set. One night, the piano player passed out. "I hadn't seen him take a drink," Joe says, "but when I examined him after the tune was over, I discovered he had been imbibing through an elongated, flexible, clear plastic straw running down into a pint bottle of whiskey he kept in his inside coat pocket."

Papa Beau's played mainly dance music, and occasionally as Joe was soloing he would look back into a dark, secluded corner and see what looked like a couple making love. With so much drinking and uninhibited activity going on, fights were not just a possibility, but a probability. "Several times during melees, I had to cover up my instruments and climb out a window to escape."

After the war in Europe began and patriotism was running high, the band often succeeded in stopping fights by striking up the National Anthem, whereupon the combatants would stop swinging, wobble to their feet and stand at attention.

Joe graduated, or was sent packing, from Capitol Hill High School in 1942. Like a lot of young men at the time, he hastily married his high school girl friend, and like a lot of couples who got married right before American entered the war, the marriage was short and not sweet. Meanwhile, as he was considering his service



Joe Crosthwait in the US Navy Dance Band (second from right on front row).



Crosthwait with the Les Brown Band. (On the front row, Joe's fourth from right; Doris Day is second from right).

options, he saw a newspaper ad announcing that the Navy was looking for musicians. He enlisted in November 1942, and reported to Norfolk, Virginia, where he was assigned to a 30-member Admiral's band. Every Navy admiral had a band that performed at his and his senior staff's beck and call.

Joe played in Navy bands in Virginia and Georgia. Compared to most enlisted men, his was a dream assignment. Because very little of the band's time was taken up with official duties — playing the call to colors or marching or playing dances for the brass — Joe was free to practice or rehearse with his mates for paying dance gigs on weekends.

A few of his new friends had been professional sidemen with bands such as Artie Shaw's, and Joe soon realized that he could cut it. Not only could he play with them, his jazz and blues improvisational skills were as good or better. He just needed to get through the war. He almost didn't.

One day in 1943, the admiral boarded the carrier, Franklin, and shipped off to the Pacific. Since the band always accompanied the admiral, all members were aboard except Joe, who was left behind in the sickbay. When he got out, he learned that the band had shipped out without him. No matter, he was told, he could join another band that was soon due into port. Months later, he learned that the Franklin had taken a torpedo hit close to the band room. Most of his friends who he was counting on to connect with in New York after the war had been killed. Among the few who survived was the Navy band's leader, a veteran New York musician named Saxie Dowell.



Joe Crosthwait arrived in New York in the spring 1945 to audition for Les Brown, the leader of one of the country's best and most successful stage bands. He got the job and joined the reed section of the band featuring twenty sidemen and Doris Day as lead singer. These were excellent musicians playing sophisticated arrangements of the popular tunes such as "Sentimental Journey." The band was based in New York, and Joe lived in an apartment on 57th Street near Central Park. He spent many of his off hours there or jamming with other musicians in some of New York's jazz clubs.

All big bands of this era went on extended tours. During one stretch the band played 62 one-nighters in 63 days. Temptations abounded on the road, from alcohol and drugs to groupies, some of whom followed the band from city to city. But Les had rules; if you drank before or during a performance, you were gone. If you used marijuana or heroin, both of which were readily available, you were gone.

Joe loved the 18-month experience with the band. But he realized with Les Brown, there was no room for advancement. Les was his own musical director, and Joe would get little or no chance to orchestrate the music, a stepping stone to his own band. So, when Jimmy Palmer offered to make Joe the musical director and arranger of his band, Joe jumped at it.

While the move was a step up for a man wanting his own band, it was risky. Jimmy Palmer's

band was well known, but it wasn't in the top echelon and occasionally would experience a drought in bookings. After a few months, Palmer's band went belly up and Joe was out of work. Regretting that he had ever left Les Brown, he returned to Oklahoma City and resumed playing club dates. At this low point in his professional life, he got a call, out of the blue, from Saxie Dowell. Saxie's band was set to begin a tour of the East Coast; would Joe come aboard as lead sax, musical director and arranger? Presto!

As Joe returned for a happy autumn in New York, he could not have imagined that in just a few months, at what seemed to be the height of his musical power, he would be turning down the money men and abandoning his musical career.



Four years later, Joe was a 28-year-old University of Oklahoma medical student, but he was laboring. Midway through the first semester, he was failing every course. Unlike with music, he had no gift to help him memorize the immense basic science vocabulary. He was working hard, but shortly before Christmas he was still failing. The class had been told that not everyone would make it. He was thinking he might be in that group; after all, he had been accepted for admission initially as an alternate.

But dammit, he couldn't flunk out. He'd gone to college for three years to prepare and he had a wife, Lee, and two kids, Jane and Joe. He had never been around such a competitive bunch as his medical school classmates, but now he was learning that he could be competitive, too. As Christmas neared, Joe made a 98 on an anatomy quiz and marked this turnaround by hanging the paper on the family's Christmas tree.

Though Joe had relinquished his dream of leading a nationally prominent big band, he hadn't given up music. To help make ends meet during college and medical school, Joe joined the musical staff of WKY radio and formed his own small band, which performed weekends for diners and dancers at the Rainbow Room in Oklahoma City's First National Bank building. When the name Crosthwait wouldn't fit on a marquee, Joe adopted the stage name Joe Cross. His band, billed as Joe Cross, His Golden Saxophone and His Orchestra, performed until shortly before he became Dr. Crosthwait.

He had looked forward to the clinical years of medical school because he had always thrived on contact with people. And he liked children, so he thought he would be good in pediatrics. On the

Christmas Eve during his pediatrics rotation, he donned a Santa Claus costume and visited several hospitalized children. He was particularly taken with one little girl, blond and blue-eyed, with cases of both measles and chicken pox. Joe spent extra time talking with her, making her smile. When he reported for work the next morning, he found her bed stripped and was shocked to learn that she had died from chicken pox pneumonia. Joe had such a hard time dealing with the little girl's sudden, unexpected death that he realized he was ill suited to pediatrics.

He didn't give much more thought to the kind of doctor he wanted to be until his three-month preceptorship with family physician Bill McCurdy in Purcell. Not only was Dr. Bill up to date medically, Crosthwait said, but the relationship he had with his patients was ideal. He inspired such trust and confidence that they felt like they could tell him anything. And if Dr. Bill said it was so, it was so.

To have such a practice was a goal worth shooting for. Moreover, he learned from Dr. Bill and others that there was no better time in history to practice medicine than the present. Joe witnessed the power both of lying on hands and administering ten thousand units of penicillin. Countering this idyllic image of family practice, however, was the view of the head of surgery that during this enlightened post-war epoch, medical students who didn't enter specialty residency programs had to be stupid.

While Joe bristled at such elitist nonsense, he was aware that specialization seemed to be the wave of the future. He was content beginning a family practice in Del City in 1957, but he wanted to expand his skills at a time when specialists such as allergists and cardiologists were still few and far between. There were no cardiologists at the Midwest City Hospital until the 1970s. And, in fact, there was no hospital in Midwest City until Joe and other local doctors put up serious money for a feasibility study, the essential first step.

He improved his ability to read ECGs and worked at the Veterans Administration heart cath lab to learn how to put in pacemakers in emergency situations. Later in his career, he intended to participate in a mini-internal medicine residency if Dr. Solomon Papper, the department head at OU, could get this innovation off the ground. "The idea was for general practitioners like me to spend two or three-month increments at the medical center immersed in a specialty like cardiology," Crosthwait said.

Unfortunately, the concept died with Dr. Papper before it could be implemented.

'If you are in
a profession,
you ought to
support it...
Simple as that.'



OSMA presidential photo, 1987-88.

Crosthwait chose Del City to practice largely because local doctors encouraged him to do so; they had more patients than they could handle. Sure enough, Crosthwait was busy from day one, but he ruefully noted that many of his first patients couldn't pay or pay much for his services. He'd send them a Christmas card every year announcing that their accounts were "paid in full."

He loved taking care of his patients; he and they developed a special bond of trust and affection. Juanita Pittman and her family were among Crosthwait's first patients. She says he was a "gentle person and a good listener. During my first husband's illness, he was with us every step of the way, including after Raymond died — at age 40. Dr. Crosthwait invited me and my daughter to come to his office. He sat there talking with us and crying with us. It was obvious he was interested in the lives and welfare of his patients and their families."

Saying he was busy in the late 1950s was like saying the Yankees were a baseball team. To Joe, getting established didn't just mean having patients come in the door. It also meant getting involved in the community, in Del City and Midwest City. He was a leader in the movement to establish a hospital in Midwest City in 1962. He was the second president of the Del City Kiwanis Club. And he volunteered to do committee work for the state and county medical associ-

ations. "If you are in a profession, you ought to support it," he recalls believing from the beginning. "Simple as that."

But one's level of commitment is highly variable, and Joe almost immediately developed the reputation as someone who could be counted on. Less able to count on him was his family, as he admits now. "I neglected them, no question about it. Sure, I was working 50 to 60 hours per week in my practice and there was no reasonable way to cut back. But I didn't have to attend all those professional meetings. I could have stayed home with my family, and if I had it to do over again...I probably would. I don't blame these young docs today for going to work for an HMO so that they can spend more time with their families."

What Crosthwait omits from that part of the discussion is that by the early sixties, he and many of his colleagues, such as Orange Welborn and Scott Hendren, were no longer simply attending occasional scientific sessions and association parties. They were engaged in a crusade against national legislation to create national health insurance for the elderly and indigent. They were convinced that such federal initiatives would drive a stake through the heart of the physician-patient relationship. "The thinking then [among the committed colleagues] was that when your profession is threatened, you don't [have time to] take your kid to the movies."

It was charged that the federal health programs were needed for persons who couldn't get health care. To counter this, Crosthwait recalls, "we [the state medical association] placed quarter-page ads in an Oklahoma City newspaper telling people who needed medical care to call a certain phone number."

No one ever called. To doctors like Crosthwait, who never turned away an indigent patient, this demonstration reinforced what they already believed: that access to medical care was not a significant problem.

Organized medicine's concerted attack on the pending federal legislation was so vociferous, if not strident, that Crosthwait believes in retrospect that many Americans may have decided that the medical profession was perhaps protesting too much. Were physicians trying to protect the American medical system or their pocketbooks?

Crosthwait recalls a particularly devastating CBS-TV documentary which "exposed a couple of money-grubbing rotten eggs and made it look like most doctors were that way." In one egregious example, Crosthwait says the suggestion was made that "a young child died because his

parents couldn't afford medical care. I called Fred Friendly, the executive producer, and told him the documentary was intellectually dishonest."

Once Medicare and Medicaid were enacted, the question seemed academic as physicians and hospitals realized that the two federal programs were financial bonanzas. "There were no financial controls, so the programs amounted to a big carrot," Crosthwait says. "The government would reimburse for almost any charge, including the charges [for indigent care] that used to be written off. It was just human nature for physicians and hospitals to belly up to the trough, and this period wasn't one of our profession's proudest."

Costs of Medicare and Medicaid [for all sorts of reasons] were soon escalating out of control and with Vietnam heating up, the phrase "guns or butter" became part of America's lexicon. Something had to give. By the early 1970s, the federal government had instituted a utilization review program that was supposed to contain costs. The Oklahoma State Medical Association's (OSMA) House of Delegates voted not to comply with the government's program, the Professional Standard Review Organization (PSRO), because it was considered to be an incursion into the physician-patient relationship. This put Joe on a collision course with the federal government: In 1972, he had been elected chair of OSMA's Board of Trustees.

The meeting between the government's PSRO officials and the representatives of Oklahoma's non-compliant physicians was held in the office of Jay Constantine, a U.S. Senate staffer and principal author of the PSRO. David Bickham, a member of OSMA's professional staff, was present. "It was a contentious meeting that had been going on for several hours and no progress was being made," Bickham says. "Our group told them why this prospective utilization review wouldn't work but Jay Constantine forcefully defended the PSRO. Finally, Constantine looked at his watch [it was about 5 p.m.] and announced that it was cocktail time."

"That hit me all wrong," Crosthwait says. "So I said it was time for me, as chairman of our board, to deliver a message: 'WE AIN'T GONNA DO IT.'" Faced with such an unhappy, intractable group, Constantine continued the meeting.

Later that evening, a compromise was struck. Oklahoma might be granted an exemption if the OSMA could develop a workable alternative to the PSRO. "I guaranteed them that our plan would be superior to theirs, and it was. In fact, the feds adapted part of our demonstration program into their system later on."



Dr. Crosthwait discusses an issue at an AMA meeting.

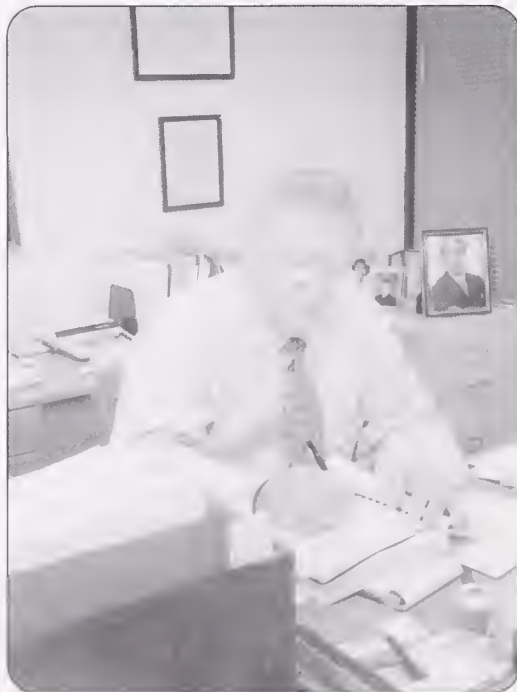
But within three years, Oklahoma's demonstration program had been subsumed by the government's system of peer review organizations. Joe thought it was time to appeal to the public by showing what life as a doctor is really like. This would counter the increasingly negative public impression that doctors are motivated more by greed than what is best for their patients. As the new chair of the association's council on professional and public relations, Crosthwait in 1973 was in a position to develop a public awareness program.

Later, as an Oklahoma delegate to the AMA's House of Delegates, he pressed for a similar program that was national in scope, similar to the excellent and effective public relations campaign presented by the Mobil Oil Company. His appeal to the delegates was received sympathetically, but the appeal to the AMA's executor director, James Sammons, for funding and expertise was turned down cold. In 1983, he and Dr. Norman Dunitz took Joe's outline for a documentary film to the AMA. Despite support of the 18-member board of trustees, Sammons, who for years had run the AMA with an iron hand, stonewalled the proposal.

Miffed and disappointed, but undeterred, Crosthwait persuaded the OSMA to fund a 30-minute documentary narrated by actor Martin Landau. It was shown to an estimated 275,000 viewers on several Public Broadcast System sta-



Dr. Crosthwait takes time to relax at home.



Dr. Crosthwait reviews some documents at the office.

tions. And it was shown at an AMA meeting in Chicago, but without the support of the AMA. In fact, says Bickham, "we had to get our own room and use our own equipment to show our film."

Furthermore, as Joe continued to lobby AMA board members on behalf of a national documentary or documentaries addressing the issues, Sammons called and told him to knock it off, that his idea would be a waste of money and time. Joe disagreed; privately, he believed that Sammons' real problem with the idea was that he hadn't thought of it first.

Later, the AMA did generate its own film, a largely feel-good production depicting two telegenic and sympathetic Iowa doctors. Thus was lost the opportunity to address the issue of the government's encroachment into the practice of medicine and the supposition that too many doctors are primarily motivated by financial income considerations.

Gradually, imperceptibly, federal regulations continued to erode the physician-patient relationship, as Crosthwait saw it. Still, he continued to rally the troops to stick together. In 1987, he was elected president of OSMA at a time when his own enthusiasm and optimism had perhaps already crested. But he looked forward to the year, aware that unforeseen events could make for a lively and challenging year. Joe was so pumped, that he decided to play one of his favorite solos, "Harlem Nocturne" on the alto sax at his inauguration. "I had not played my horn since I graduated from medical school in 1955. So I started practicing a few weeks before the event."

To hear Joe tell it, his solo may have been the most memorable event of his presidency. "Nothing of any great consequence happened," he says in a disappointed tone. "Things just rolled along as they had." As OSMA executive director, David Bickham had a running dialogue with Crosthwait that year. "I think for some time Joe had been a little disappointed that his colleagues wouldn't stick together and take stronger, more principled stands."

But if nothing much happened, it wasn't because Crosthwait wasn't trying to provoke reactions. His president's columns in the OSMA Journal were often pugnacious. In one in July 1987, addressed to the state House of Delegates, he wrote that he "was mad as hell and I'm not going to take it anymore." He wrote about feeling frustrated and alienated at a recent medical staff meeting. Rather than discussing how they could improve patient care, they talked about "how best to cope with the many obstacles to that care. We sounded more like insurance men.

lawyers, even government bureaucrats, than we did physicians...." He left that meeting, he continued, "wondering [if] I had become an anachronism. Had my time passed?"

Two years later — and one year after his presidential term ended — he quit his family practice in Midwest City. "Joe didn't talk to me much about it beforehand," says Bickham. "Joe liked to take care of people, but the burdens and realities of what it takes to practice nowadays had been wearing him down."

"That's true," says Joe. "I had been spending less time taking care of people and more time taking care of crap." And yet, there was another factor in his decision to hang up his stethoscope. "When I began the practice, most of my patients had sore throats and illnesses that I could handle. But as more and more of them aged, getting into their sixties and seventies, they were developing cancers and chronic terminal diseases. They had always trusted me to care for them and I always had. Now they were dying."

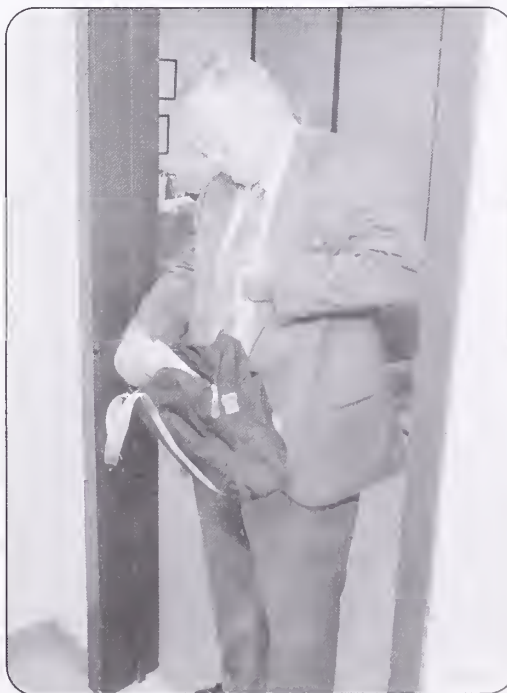
Joe's own health was imperiled by diabetes, hypertension and cardiovascular disease. The first two were under medical control, but he underwent angioplasty in 1980 and 1991 and multi-vessel cardiac by-pass surgery in 1995. Today, he believes he is reasonably healthy for a 74-year-old man. Though he still misses caring for his patients, who he says he loved above all, he says he is happy and seems to be. He and Lee were divorced in March 1983, after several years of separation and unhappiness. He freely states that the long hours consumed in his practice and advocacy on behalf of organized medicine contributed to the estrangement. But in November 1983, his personal life improved markedly after he married Judy Crosthwait. They have been happily married ever since, and he is close to his children Joe, an attorney, and Jane, a pharmacist, and Judy's son, Todd.

Next year, Joe will celebrate his tenth anniversary as the medical director for PLICO, the OSMA-owned insurance company for Oklahoma doctors and their dependents. He was hired by president Rod Frates, who told him the company was in debt. "My only directions were to see if I could find out why and fix it if I could," Crosthwait recalls. "All I knew was that I would be reviewing a lot of hospital charts and claims. It's been an interesting and challenging decade and lo and behold, PLICO is still in business." Pressed to explain his role in the company's success, Joe says only that he has become a pretty fair negotiator with hospital administrators making claims.

As he said earlier in a slightly different context, he stopped tooting his own horn in 1955. ¶



Dr. Joe Crosthwait and his wife, Judy, stand in front of their newly-repaired home (it was hit by a tornado in June, 1998).



Dr. Crosthwait checks his papers on the way to a business meeting.

Diabetes Mellitus and Major Depression: Considerations for Treatment of Native Americans

Julia K. Warnock, MD, PhD; E. Montez Mutzig, MD

Non-insulin dependent diabetes mellitus (NIDDM) extracts a heavy toll on the Native American community in the United States. Evidence indicates that patients with NIDDM are three times more likely to have a co-existing diagnosis of depression. Untreated major depression unfavorably impacts the complication rates of NIDDM. Thus, Native Americans who are at increased risk for NIDDM are likely to be at increased risk for major depression.

Physicians in Oklahoma should be aware of important treatment issues when selecting an antidepressant medication to treat major depression in Native Americans with NIDDM. Treatment options for major depression in the context of diabetes are discussed. Evidence currently indicates that the serotonin reuptake inhibitors (SSRIs) have significant advantages and a more favorable side effect profile for the treatment of depression in patients with diabetes mellitus.

Introduction

Non-insulin dependent diabetes mellitus (NIDDM) is more prevalent in minority populations and extracts a heavy toll on the Native American Community in the United States. There are more than 500 tribal Native American organizations and about 1.9 million persons identifying themselves as an American Indian or Alaska Native.¹ High prevalence rates of diabetes among most Native American tribes are noted. The Pima tribe in Arizona has a prevalence rate of approximately 50 percent,² for the Apache tribe the rate is about 10 percent.³ The overall prevalence rate for Native Americans is 2.8 times the overall US rate or about 9 percent

according to the Indian Health Service.⁴ Similarly, the prevalence of diabetes was found to be 11.6 percent among the Native American Behavioral Risk Factor Surveillance system respondents.⁵

Major depression is a commonly occurring medical problem which frequently coexists with diabetes mellitus. Both depression and diabetes significantly impacts the mortality and morbidity of the patient. When depressive mood disorders occur in the context of diabetes, the prognosis is worse for both disorders. The prevalence rates of depression in the adult general population has been estimated to range from 2.3 to 3.2 percent for men and 4.5 to 9.3 percent for women.⁶ The prevalence of depression in diabetes varies from 8.5 to 27.3 percent, which is two to three times higher than in the general population.⁷

One significant prospective population-based study indicated that major depressive disorder has a moderate-sized relationship (estimated relative risk, 2.23; 95% CI 0.90-5.55) to the risk of becoming a type II diabetic.⁸ Studies indicate that patients with both disorders have higher utilization rates of medical care, increased somatic complaints, poor adherence to medical regimens, and increased morbidity and mortality.⁹

The rates of diabetic complications are usually higher for Native Americans than for Caucasians. For example, diabetic end-stage renal disease is significantly higher for Native American than for Caucasians and they also have higher rates of proteinuria and albuminuria.¹⁰ Native Americans in Oklahoma were found to have increased rates of retinopathy.¹¹ In addition, increased rates of amputations and mortality are

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typically seen in Native Americans with diabetes as compared to white individuals with diabetes.¹⁰ Lee and colleagues¹² specifically found diabetes to be the second leading cause of death in Oklahoma Indians. They further note an excessively high mortality rate among diabetic Oklahoma Native Americans compared with the general population.

Depression in Diabetes

The natural course of major depression is chronic and relapsing. The impact on a patient's quality of life is profound. Patients with depressive symptoms, even in the absence of clinical depression, experience poor physical and social functioning, more disability and pain, and worse perception of their current health status compared to other common medical illnesses such as hypertension, arthritis, and even diabetes.¹³

Little is known about the course of depression in diabetic patients. Even less is known about the course of depression in the Native American population with diabetes. However, several studies underscore the negative impact of depression on the course of NIDDM. When depression occurs in the context of diabetes, it is particularly virulent, with a mean relapse rate of 4.2 episodes of depression in five years of follow-up.¹⁴ In a more recent study of depression in diabetes, Lustman and colleagues¹⁵ found recurrence or persistence of depression in 92 percent of the patients during a follow-up period of five years. Further, for patients responsive to antidepressant medication, a reemergence of major depression may occur in as many as 60 percent of patients in the first year if pharmacotherapy is discontinued.

Depressive symptoms are also associated with an increased risk of developing complications of diabetes. Complications such as neuropathy, retinopathy, and nephropathy are three times more likely to occur in diabetic patients with depression.¹⁶ Thus, it may be a reasonable assumption that Native Americans with higher rates of NIDDM than the general Caucasian population are also experiencing increased rates of major depression. One can presume that by aggressively treating the major depression as well as the NIDDM, the complication rates of Native Americans with NIDDM can be positively affected.

Diagnosis of Major Depression in Patients with Diabetes

An accurate psychiatric diagnosis begins with a thorough history. As of yet, there are no specif-

ic biologic markers for the presence of clinical depression. However, a personal or family history of major depression can be informative. Major depression is currently diagnosed by assessing the presence and the severity of an established set of criterion symptoms. According to the "Diagnostic and Statistical Manual of Mental Disorders," fourth edition,⁶ the diagnosis of major depression requires the presence of five or more of the following symptoms during the same two-week period. These symptoms include depressed mood, loss of interest or pleasure, changes in sleep and appetite, decreased ability to think or to concentrate, psychomotor changes, feelings of guilt or worthlessness, decreased energy or fatigue, and recurrent thoughts of death. These symptoms must be severe enough to result in social, interpersonal, occupational, or other types of functional impairment. However, in patients with a physical illness, such as diabetes, some of the diagnostic criterion symptoms of depression (e.g. sleep difficulties, appetite changes, difficulty concentrating) may be the result of the medical condition, making the diagnosis of major depression more of a challenge for the primary care physician.

Lustman and colleagues¹⁷ noted that the symptom profile of depression in diabetic patients is similar to that in depressed psychiatric patients and can be differentiated from non-depressed diabetic patients. Further, Jakobson¹⁸ notes that symptoms of depression should be evaluated after the patients have obtained glycemic control. If the depressive symptoms persist despite adequate blood sugar control, an evaluation for depression should be pursued.

It is known that depression is common among patients visiting primary care physicians. Also, there is general agreement that depression is at least as common in the American Indian Community.¹⁹ In a clinic-based research study conducted by Wilson and colleagues¹⁹ at an Indian Health Service (IHS) Clinic on a reservation in southwestern United States, the prevalence of any depressive syndrome was 20.7 percent. When symptom duration criteria were used, the prevalence of major depression was 8.9 percent. These authors further note that depression is under-recognized by IHS physicians, just as it is under-recognized by physicians in other primary care settings. For the primary care physician, it can be very beneficial to utilize simple and effective screening tools in the assessment of depression.

Assessment Aids in the Diagnosis of Major Depression

Several diagnostic instruments exist that may be helpful in the screening of major depression in a primary care office. The Beck Depression Inventory (BDI) is a 21-item scale which measures the presence and severity of the symptoms of depression by requiring a self-rating from 0 to 3.²⁰ The BDI has been studied extensively and has been shown to be a valid and reliable measure of major depression in psychiatric patients.²¹ Lustman and colleagues²² found the BDI to be an effective screening test for major depression in diabetic patients. The Hamilton Depression Scale (HAM-D-21)²³ is a 21-item instrument also designed to assess depressive symptomatology. It is often clinically helpful to repeat the HAM-D-21 or the BDI with each patient visit to document changes in the patient's mood over time. The Geriatric Depression Scale^{24, 25} was designed specifically for use in elderly patients. The 15-item scale requires only a yes or no answer, which makes it easy to administer. The focus of questioning is on psychiatric concerns and quality of life issues rather than health concerns. Thus, there may be less false positive results, since many elderly patients have real physical complaints.²⁶

The Primary Care Evaluation of Mental Disorders (PRIME MD) is a screening tool that facilitates rapid and accurate recognition and diagnosis of the mental disorders most commonly seen in adults in primary care settings.²⁷ Major depression, as well as dysthymia, anxiety disorders, alcohol dependence, and somatoform disorders are among the common psychiatric disorders that can be effectively and easily assessed by this instrument.

Treatment of Depression in Native American Patients with Diabetes

Recent advances in the neurosciences and behavioral sciences have resulted in the development of new and more effective treatments of depression. For the primary care physician treating patients with NIDDM, there are a variety of antidepressant medications, psychosocial interventions, and supportive-types of psychotherapies that are available. The psychotropic medications achieve relatively quick symptom relief, and psychotherapy enables the patient to learn more effective ways to deal with life's problems. Native American individuals may vary in the type or combination of treatments that will be most useful.

The primary care physician treating a diabetic patient with mild depression should try to individualize a treatment program unique to the patient's specific needs. Treatments may include psychosocial interventions such as a referral to a mental health professional for a short-term (10 to 20 weeks) treatment of cognitive/behavioral therapy or interpersonal therapy. Diabetic education and local diabetes support groups can be extremely helpful for many patients. These types of programs provide long term benefits of improvement in knowledge, psychosocial functioning and glycemic control.²⁸

The prevalence of obesity was found to be higher among Native Americans (34.4%) than among Caucasians (23.9%), which is one factor that must be considered as part of a comprehensive program.⁵ One such educational program is BRAID, an acronym for Becoming Responsible American Indian Diabetics, which was started in Oklahoma City, Oklahoma, in June 1996, at the Oklahoma City Indian Clinic. This program provides a wide variety of educational activities such as nutritional counseling, smoking cessation, weight loss groups and foot care. Depressed diabetic patients with cardiovascular disease can also benefit from a simple intervention such as cardiac rehabilitation with significant improvement of their depression.²⁹ Some patients even with mild depression, especially if they have neurovegetative symptoms, may also respond to carefully selected antidepressant medications.

For patients with moderate to severe depression, antidepressant agents are the foundation of treatment. There are several major classes of antidepressant medication all of which are equally effective, including 1) tricyclic antidepressants (TCAs), such as amitriptyline and nortriptyline; 2) selective serotonin reuptake inhibitors (SSRIs) such as fluoxetine, sertraline, and paroxetine; 3) monoamine oxidase inhibitors (MAOIs) such as tranylcypromine or phenelzine; 4) other or atypical agents, include trazodone, bupropion, nefazodone or venlafaxine. Other options in the treatment of major depression include phototherapy and electroconvulsive therapy.

Factors Impacting Antidepressant Selection for Native Americans with NIDDM

When selecting an antidepressant, a clinician is likely to focus on the safety and the side effect profile of a particular agent, since all of the various antidepressants are equally efficacious. Certainly, the patient's prior response to a par-

ticular antidepressant treatment will affect drug choice, but there are important and unique considerations in the selection of antidepressants in treating the Native American diabetic patient with depression.

There is a growing interest in ethnic psychopharmacology, the study of differences in drug disposition and response among various ethnic groups. Mendoza and colleagues³⁰ notes that the existing body of knowledge concerning pharmacological issues in the Native American ethnic groups is both meager and confusing. Although the Mongoloid ancestry of Native American populations is fairly well established, pharmacogenetic data reveals numerous inconsistencies regarding antidepressant pharmacology among Black, Caucasian, Hispanic and Asian patients.³¹ Even less information in this area is available for the Native American population.³⁰ Thus, much of the information is obtained from anecdotal and observational data.

The TCAs are the older, well-established drugs that have good efficacy. However, they have a broad side effect profile because they affect a number of receptor sites in the brain, including the alpha-adrenergic, histaminergic, and cholinergic receptors. The TCAs have predominant noradrenergic effects, which stimulate glyconeogenesis and gluconeogenesis, thus, leading to hyperglycemia. The overall effect of TCA treatment is to produce hyperglycemia and may possibly lead to increases in Hb A_{1c}.³² A recent study by Lustman and colleagues³³ found nortriptyline, a TCA with less side effects, to be an effective antidepressant for treating major depression in patients with diabetes. However, nortriptyline had a direct, negative impact on glycemic control as measured by glycated hemoglobin levels.

Other significant problems associated with TCAs include increased appetite, weight gain, and carbohydrate craving.³⁴ The risk factors for diabetes such as sedentary lifestyle (58%), hypertension (16%) and smoking (28%) are similar for both the Native American and the general Caucasian population. The prevalence of obesity (34.4%) as a risk factor for NIDDM is significantly higher for Native Americans.⁵ Thus, side effects of increased appetite and weight gain leave Native Americans more vulnerable to the adverse effects of TCAs.

The antimuscarinic side effects of TCAs are associated with impairment in memory, in concentration and in psychomotor function tests.³⁵ The impairment in cognitive functioning and in concentration may easily worsen a possibly

already compromised situation, especially in the depressed elderly diabetic patient. The patient's ability to follow dietary and medication regimens may be hampered. The quinidine-like effects of the TCAs are problematic in any patient with myocardial ischemia, and diabetic patients are prone to coronary artery disease, especially silent ischemia. By prolonging the QT interval, the TCAs may contribute to conduction abnormalities. The TCAs share some electrophysiologic properties with type 1A agents. Type 1A antiarrhythmias (quinidine) have been associated with increased mortality when given to post MI patients.

The SSRIs are particularly useful in the primary care setting because of their safety in overdose and significantly milder side-effect profile. They are uniquely advantageous in patients with diabetes and major depression. Goodnick and colleagues³² noted in a review of animal studies on various neurochemicals and their effect on glucose regulation that the serotonin precursors such as 5-hydroxytryptophan and the SSRIs are associated with hypoglycemia. It appears that SSRIs may act to reduce plasma glucose independently of insulin secretion. The SSRIs enable the physician to treat the depressive symptoms without concern about causing hyperglycemia or the other negative drawbacks of the TCAs. Additionally, the SSRIs do not typically cause weight increases and they have been noted to decrease carbohydrate craving and to suppress appetite.³⁶ Recently, there has been increased interest in the use of SSRIs in the treatment of obesity because serotonin appears to reduce carbohydrate ingestion and enhances satiation.³⁷

While pharmacological treatment alone is not an effective means to obtain long-term weight loss, the combination of sertraline, administered together with cognitive-behavioral treatment (CBT), was found to be more effective in inducing weight loss in obese patients than when compared to CBT alone.³⁸ Ricca and colleagues³⁸ further submit the effects of sertraline on weight may be independent of its effects on mood or anxiety, but may act to enhance satiety and/or suppress appetite, similar to observations in animal models. Further, the SSRIs do not cause impairment in psychomotor function, postural hypotension,³² or ability to concentrate. Thus, SSRIs are recommended as a first line choice in the treatment of depressed patients who have diabetes mellitus.

MAOIs are less likely to be used by primary care physicians as first line agents in the treat-

ment of depression. Patients taking the MAOIs have been noted to have an increase in blood glucose³² and weight gain. In addition, these patients must follow a tyramine-restricted diet, which may complicate special dietary needs of the diabetic patient.

Much less is known about other antidepressant agents such as bupropion, nefazodone or venlafaxine. Goodnick³⁹ notes that while no studies are available, it is possible to speculate on the relationship of diabetes treatment and some of the other antidepressants. He suggests that it is important to consider the relative selectivity for serotonin (5-HT) over norepinephrine (NE) in terms of reuptake blockade. Considering the ratio of 5-HT effects to NE effects, in decreasing order of specificity, the list is trazodone (26), venlafaxine (5.4), nefazodone (4.2), and bupropion (0.15). Goodnick³⁹ further suggests that one may speculate that insulin sensitivity would be enhanced by the administration of trazodone, venlafaxine, and nefazodone, and lessened by bupropion. These drugs are noted to not be associated with carbohydrate craving or weight gain. Warnock and Biggs⁴⁰ reported one case in which nefazodone was used to treat depression in a patient with diabetes. Over the course of one year, a very significant reduction in insulin was made, possibly because of enhanced insulin sensitivity.

Conclusion

It is vital that primary care physicians recognize the relationship that exists between NIDDM and depression. Major depression occurs three times more often in diabetic patients and has a tremendous impact on glucose regulation, compliance, quality of life, and medical complications. While little is known about the course of depression in the Native American population in Oklahoma with diabetes, it is strongly suspected that the rate of depression is at least as high as it is in the general population with NIDDM. Further, the rate of NIDDM is well documented to be an "epidemic" health problem for American Indians.¹ Thus, one may conclude that major depression is likely to be a significant health problem for Native American Oklahomans with NIDDM. Native Americans in Oklahoma with NIDDM also have increased rates of diabetic complications. Appropriate treatment of major depression in patients with NIDDM has been documented to improve compliance and to decrease the risk of complications. Thus, primary care physicians when treating patients with

NIDDM should aggressively evaluate and appropriately treat major depression.

Individualized treatment is required to minimize the symptoms of both depression and diabetes. Mild depression can usually be effectively treated by psychosocial interventions. Antidepressant agents are required for patients with moderate to severe depression. Based on the side effect profile of the different classes of antidepressants, SSRIs are recommended as the first line agents in the treatment of major depression in Native American patients with diabetes mellitus. It is important to note that the SSRIs and perhaps some of the other newer antidepressive agents do not have a hyperglycemic effect like the TCAs and MAOIs.

Further research efforts should focus on carefully assessing the nature and prevalence of major depression in Native Americans in Oklahoma. Consideration should be placed on possible cultural differences in symptom expression of depression across tribes as well as assimilated versus non-assimilated members of the same tribe. Through accurate assessment of major depression, appropriate subsequent treatment may ensue. Additional studies are also needed to discern optimal pharmacotherapy for major depression in Native Americans, especially those with NIDDM.

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“When, after so many efforts, you have at last arrived at a certainty, your joy is one of the greatest which can be felt by a human soul.”

Louis Pasteur (1822-1895)

*Speech at the inauguration of the Pasteur Institute
November 14, 1888*

47-Year-Old Man with Left Flank Pain: A Clinical Pathological Correlation Conference of the University of Oklahoma College of Medicine

Doris Quintana, MD; Max Walter, MD; Alex Jacocks, MD; Masatoshi Kida, MD

Case Presentation

Doris Quintana, MD

The patient was a 47-year-old male with a history of progressively worsening left flank pain. He had no prior history of renal or kidney stones. He also denied nausea, vomiting, diarrhea, fever, or chills. A CT scan of the abdomen showed two 2.0 × 1.5 cm masses in the retroperitoneal area of the upper abdomen. The patient was admitted for laparotomy and excision of these masses.

His past medical history was significant for a diagnosis of pituitary adenoma four years prior to admission. One month later he was found to have a carcinoid of the thymus, which was resected. A gastrinoma was diagnosed four months after this, along with a tumor at the head of the pancreas, which was resected. Subsequently he was found to have a parathyroid lesion and underwent subtotal thyroidectomy. He developed insulin-dependent diabetes three years prior to admission. He had a long history of gastroesophageal reflux disease, had a tonsillectomy as a child and had a left nephrectomy at the age of 19 but he didn't remember the reason. His family history was unremarkable. Medications at the time of admission included omeprazole, bromocriptine, aleudronate and insulin.

Physical examination revealed a well-developed, well-nourished male in no distress. He had a well-healed transverse scar across the lower neck, a well-healed median-sternotomy scar, and a left anterior chest scar from previous

surgery. His abdomen had a bilateral subcostal scar from pancreatic tumor resection. No masses were palpable. There was tenderness to palpation in the posterior aspect of the left side. The remainder of the exam was unremarkable.

Laboratory studies were normal with the exception of WBC 7.0, Hgb 14 g/dl, Hct 41%, platelets 174k, Alb 4.0 g/dl, Na 134 meq/l, K 4.5 meq/l, Cl 103 meq/l, CO₂ 26 meq/l, BUN 17 mg/dl, Creat 0.7 mg/dl, Glu 299 mg/dl, and Ca 9.9 mg/dl.

A surgical exploration of the abdomen revealed no abnormalities of the liver or mesentery. However, three retroperitoneal masses were found, the largest of which was cephalad and palpable through the diaphragm. An incision in the diaphragm was made in order to excise that mass. A chest tube was placed, the diaphragm was re-approximated, and the abdomen was closed. He did well post-operatively and was discharged on post-op day 10. The excision of the masses alleviated most of the left flank pain that he was experiencing prior to admission.

Question: Was the family history reliable?

Dr. Quintana: Yes, he was a reliable source and I believe both his parents were alive. They didn't have any endocrine problems or any other significant problems with the exception of some coronary artery disease.

Question: What was his blood pressure?

Dr. Quintana: His pressure was 140/70.

Radiology

Max Walter, MD

We will begin with the studies of his current illness and then review some of the distinctive images from his past medical history. On admission, he had a normal lumbar spine series. Figure 1 is from a chest CT performed the next day (a representative sample of the upper chest). It shows post-sternotomy changes, fibrosis in the left thymus bed and a left pleural effusion. Figure 2 shows a large mass cradled by the left ribs between the spleen and the spine. The mass is of low density with some small central areas of enhancement. Behind the stomach is a second mass. Figure 3 demonstrates a cyst behind the stomach and more of the left-sided mass, which at this point measures $6 \times 6 \times 7$ cm and exhibits rim enhancement and some internal enhancement. Figure 4 shows a more inferior portion of the left paraspinal mass, and a second more lateral rim-enhancing mass involving the chest wall. There is also the inferior portion of the cyst in the pancreas bed. The central low density of the left lateral mass may indicate necrosis or simply reflect the timing of the enhancing contrast bolus. The liver, spleen and right kidney were normal. Filling defects in the spleen described on previous CT examinations were not demonstrated on this examination. Figure 5 reveals an absent left kidney with a patent left renal artery and vein, suggesting that the nephrectomy was not radical.

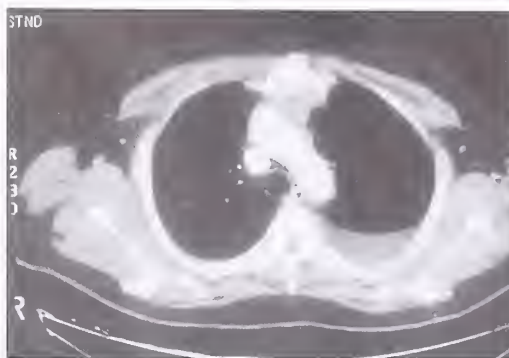


Figure 1. CECT upper chest. Post-sternotomy changes, fibrosis in the thymus bed, and left pleural effusion.



Figure 2. CECT chest and abdomen. There is a large mass cradled by the left ribs between the spleen and the spine. There is also a mass behind the stomach.

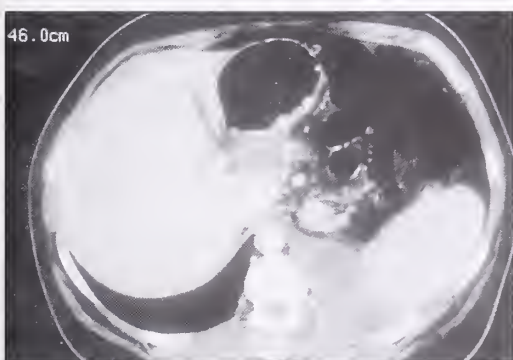


Figure 3. CECT chest and abdomen. There is a cyst behind the stomach and the $6 \times 6 \times 7$ cm mass now shows rim and internal enhancement.

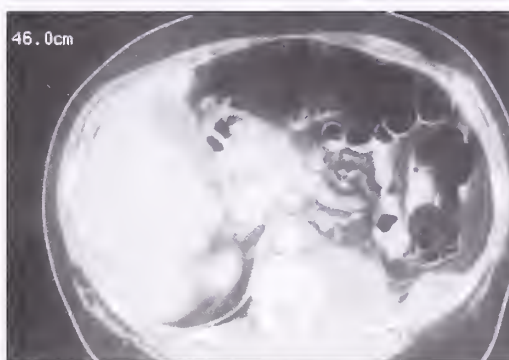


Figure 4. CECT chest and abdomen. There is a more lateral left chest wall mass and the more inferior portion of the paraspinal mass is shown. The cyst in the pancreas bed is also shown.

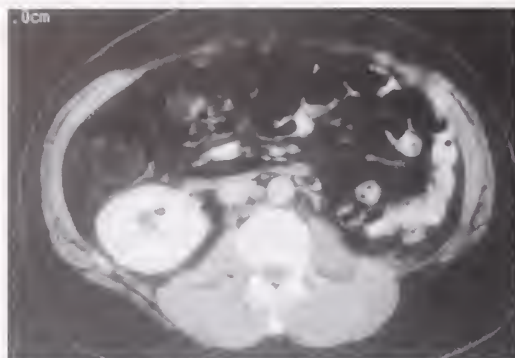


Figure 5. CECT chest and abdomen. The left kidney is absent and the left renal pedicle is shown. There is a 1 cm node between the aorta and the vena cava.

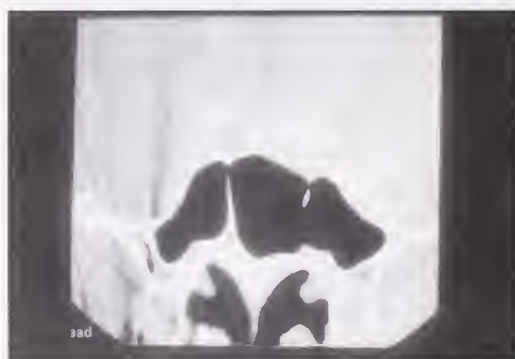


Figure 6. Pituitary CECT. There is a right sided 5 mm pituitary adenoma.



Figure 7 & 8. Chest PA and Lateral . There is a large anterior mediastinal mass that extends to the left.

Review of prior radiological examinations disclosed a normal chest x-ray seven years earlier and an upper GI series at that time demonstrated gastroesophageal reflux and prominent duodenal folds. Figure 6 is a coronal image from a dynamic bolus contrast pituitary CT at the same time. Although artifacts from the teeth degrade the image, a late enhancing right-sided 5 mm adenoma in the pituitary is clearly seen. Axial images confirmed the finding.

The patient also had chest PA (Fig. 7) and lateral films (Fig. 8) four years prior to admission, which clearly show a large left anterior mediastinal mass with a distinctly lobulated periphery. A chest CT to evaluate this mass was performed. Figures 9, 10, and 11 show this 15 cm mass extends from the aortic arch to the cardiac apex, begins in the high anterior mediastinum, lies along the left anterior mediastinal margin and extends into the left pleural space. It does not appear to invade the chest wall or the pericardium and contains a central enhancing vessel or scar.

The thyroid gland was normal and there was no evidence of a parathyroid adenoma. The differential diagnosis for a mass such as this includes thymoma, thymus carcinoma, carcinoid, teratoma, and lymphoma, as well as a number of less common tumors. Figure 12 is from the abdomen on this same examination and reveals a 4 cm mass behind the stomach in the neck of the pancreas. Lung images show a small right-sided sub-pleural lipoma. (Fig. 13)



Six months after that surgery, a follow-up CT of the chest and abdomen showed normal post-operative scarring and post-radiation changes in the chest. The pancreatic tumor was again demonstrated and was unchanged. Three years prior to the present admission, the patient had an MRI of the head and neck. The 5 mm adenoma in the pituitary was unchanged. Following removal of the pancreatic mass, the patient had another CT of the chest and abdomen, which demonstrated a pancreatic pseudocyst where the pancreatic mass had been, and a few small filling defects in the spleen, presumably infarcts.

Discussion
Alex Jacocks, MD

The appearance of these left upper quadrant masses on CT scan was helpful at sorting out several things. Certainly anatomic variations, such as accessory spleens and pulmonary sequestrations, are considerations when looking at left upper quadrant, retroperitoneal masses. I believe that our CT guidance has really helped us rule out those items. The original description of the patient indicated that he had a left nephrectomy, but we don't know the reason for that. He would have been about 16 years of age at that time, a bit old for either Wilms' tumors or neuroblastomas, although these are conceivable possibilities. Renal cell cancer generally grows into the renal vein and vena cava, and may have perihilar or periaortic lymph node metastases and has been known to spread hematogenously to the lung, bone, liver, brain, adrenals, contralateral kidneys and other areas of the body. Obviously the diagnosis for the original nephrectomy would be important to know, but any of these diagnoses seem to be a bit out of the realm of probability for this patient.

Retroperitoneal tumors are certainly a possibility. Extragenital germ cell tumors are rare but the retroperitoneum is the most common site of origin of these invasive tumors, and they are not well encapsulated as the tumors in our patient appear to be. Germ cell tumors are usually associated with advanced local and metastatic disease. No specific mention was made of the examination of the testes. He is older than most at presentation of these types of tumors. Metastases from the testes, cervix, uterus, prostate, bladder, and colon can all occur in the retroperitoneum, but most commonly involve the periaortic lymph nodes.

Lymphoma, of course, is a possibility in a patient of this age with this presentation, and as

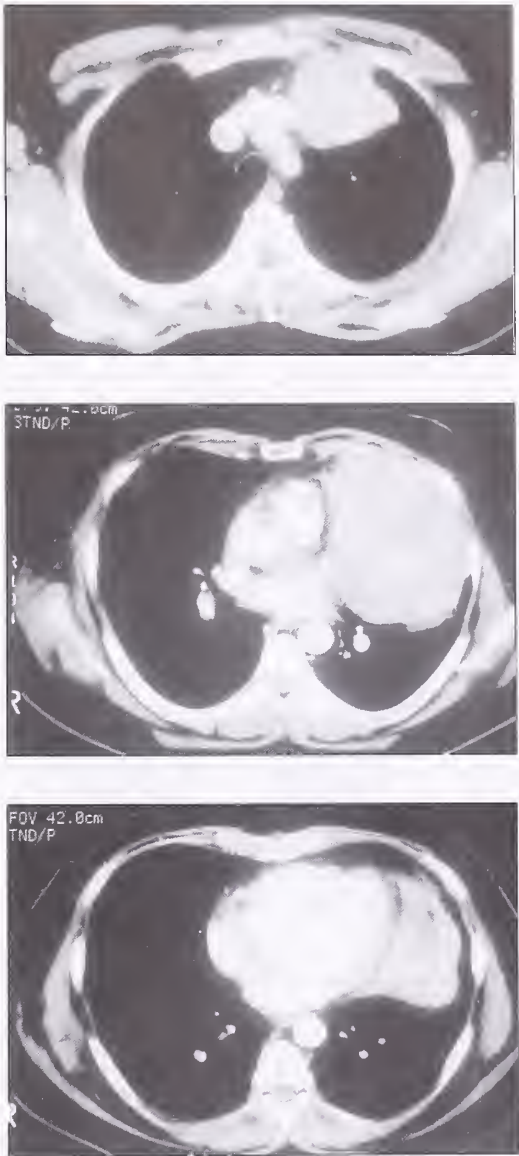


Figure 9, 10 & 11. CECT: of the chest. There is a large (15-cm) anterior mediastinal mass extending from the aortic arch to the cardiac apex, and extending into the left pleural space.

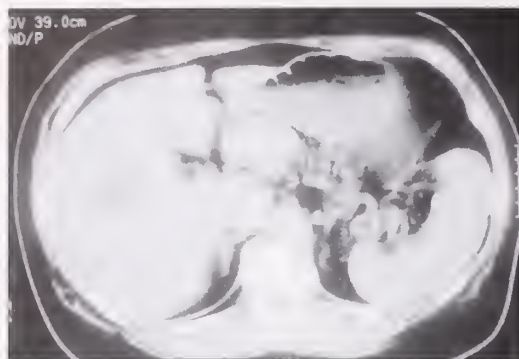


Figure 12. CECT of abdomen. There is a 4 cm mass behind the stomach in the neck of the pancreas.

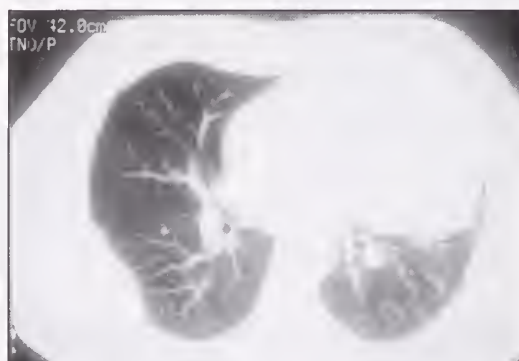


Figure 13. CECT of the chest. This lung window shows a right sided sub-pleural lipoma.

you know, with lymphoma essentially anything is possible. Usually there are other associated large lymph nodes or systemic signs and symptoms such as fever, chills, anorexia, weight loss, etc. None of these seem to be the case in this particular patient. No abnormalities were noted in his peripheral blood evaluation, although we were not given the details of the white cell differential, and I did not see any sign that a peripheral smear was done.

Soft tissue sarcoma is always a major concern with retroperitoneal masses of unknown etiology. The basic biologic and clinical behavior of all sarcomas is fairly similar, be it of fibrous, fatty, muscle, or vascular origin. Efforts at wide excision provide the basis for treatment along with radiation and chemotherapy, although some, such as Ewing's sarcoma, embryonic rhabdomyosarcoma, and osteogenic sarcoma, are more responsive to chemotherapy and radiation than others are. Unfortunately, any of the soft tissue sarcomas can be encountered at any age. We might anticipate some predisposing factors such

as a history of trauma or radiation exposure. We know that patients with arsenic, vinyl chloride or herbicide exposure, viral infections, lymphedema, neurofibromatosis Type I, and even retinoblastoma have higher incidences of soft tissue sarcomas than other patients. This patient does not seem to fall into those categories, but a soft tissue sarcoma of some sort could certainly be a possibility in this situation.

Finally, I would like to consider multiple endocrine neoplastic syndromes. These syndromes are familial and autosomal dominant disorders, which tend to induce tumors that are multicentric in origin and may be benign or malignant in histologic grade and behavior. Multiple tumors may occur synchronously or more commonly metachronously. Pearse, in 1968, was first to associate these tumors with amine precursor-uptake-derived cell origin and to advance the hypothesis of neuroectodermal disorder of a congenital nature. However, the endocrine cells of the parathyroid and pancreas do not appear to be of neural crest origin as much as the adrenal tumors, resulting in efforts to identify an underlying mutated gene. Recent work has localized a focus on the proximal long arm of chromosome 11 at the 11q13 band associated with the MEN I syndrome. This appears to be a tumor suppressor gene that probably requires a "double" type mutation to become manifest in patients. Recent studies have localized genetic defect for the MEN II syndromes on the long arm of chromosome 10, again a region close to the centromere and thought to be a tumor suppressor gene.

The MEN IIa syndrome, also called Whipple's syndrome, is characterized by bilateral medullary thyroid carcinomas, pheochromocytomas, and hyperparathyroidism, and is usually due to hyperplasia. As I mentioned, there seems to be a mutation of the RET proto-oncogene in these patients. MEN IIb is a syndrome represented not only by the medullary thyroid carcinoma and pheochromocytomas but also mucosal neuromas with diffuse autonomic nervous system hypertrophy and skeletal abnormalities such as a Marfanoid habitus, kyphosis, pectus excavatum, pes planus or cavus, and congenital dislocation of the hip.

MEN I syndrome, which has a prevalence estimated from 20 to 200 persons per million, was first mentioned by Erdheim in 1903, was linked to a familial setting by Rossler and Dressler in 1939, and was recognized as a hereditary disease by Wormer in 1954. This syndrome is characterized by parathyroid

hyperplasia, pancreatic islet cell tumors (with gastrinomas and insulinomas being most common), pituitary adenomas, including prolactin-secreting tumors, ACTH-secreting tumors, and growth hormone-secreting tumors. Also associated are nonfunctional adrenocortical tumors, thyroid adenomas, lipomas, and most recently, carcinoid tumors.

The patient today had a significant history for pituitary adenoma being treated with bromocriptine, a dopamine receptor antagonist used to treat prolactin-secreting tumors, acromegaly, and Parkinsonism. He also had a gastrinoma with resection of pancreatic islet cell tumor and a right subtotal parathyroidectomy. Thus, I would place this patient into a MEN I syndrome. Whether this has occurred sporadically as part of a familial syndrome is obviously important genetically, but from what we can tell from the history, it sounds like no one else in the family is “fessing up,” so I presume this to be a sporadic incidence. Knudson’s theory on genetic presentation of this syndrome is that a heterozygous parent passes on one abnormal allele on chromosome 11. It is believed that a second mutation must occur to affect the opposite allele which ultimately results in manifestation of the disease, and thus helps to explain the incomplete penetrance of the disorder. As shown in Table 1 from a recent review by Barbara Padberg from Zurich, patients with multiple endocrine neoplasia Type I have primary hyperparathyroidism in 90 to 97 percent of cases, endocrine and pancreatic tumors in 30 to 50 percent, duodenal gastrinomas in 25 percent, pituitary adenomas in more than 60 percent, and neuroendocrine tumors such as carcinoid in 5 to 9 percent.

Interestingly, patients with MEN I who have pancreatic tumors are often found to have multicentric diffuse hyperplasia of the pancreatic islets. Gastrinomas are most common, but in the MEN I syndrome, nearly all of these patients have their gastrinomas in the duodenal mucosa, associated with elevated levels of serum gastrin, severe ulcer diathesis and secretory diarrhea. Because of the multicentricity and small size of these tumors, both surgical and biochemical cures are rare. The usual treatment is with H₂ receptor antagonists, omeprazole and parietal cell vagotomy. Metastases from these multiple diffuse islet cell tumors tend to occur either within the pancreas, in the duodenum, in the local lymph nodes or in the liver, which I think is important in considering our patient today.

Finally, our patient had a poorly-differentiated carcinoid of the thymus, resection of which

Table 1. Clinical incidence of endocrine changes occurring in patients with MEN I.

	%
Primary hyperparathyroidism	90-97
Endocrine pancreatic tumors	30-82
Duodenal gastrinomas	25
Pituitary adenomas	> 60
Neuroendocrine tumors (carcinoids)	5-9

evidently also involved partial resection of the left lower lung lobe. Carcinoid tumors are neuroendocrine tumors that tend to be indolent and with varying malignant potential. They arise from the Kulchitsky cells, which are a type of enterochromaffin cells in the crypts of Lieberkuhn and may secrete numerous endocrine and vasoactive substances. We most commonly think of serotonin and tachykinin, but they may also secrete ACTH and 5-hydroxytryptophan. They are also commonly associated with other primary non-carcinoid neoplasms in 15 to 30 percent of patients including colon, stomach, lung, and breast cancers.

Carcinoids may occur in either the foregut, midgut or hindgut. In sporadic cases, the midgut carcinoids are seen in the appendix in 85 percent of the patients, the small intestine, (especially the ileum) in 13 percent and the rectum in 2 percent. Large metastases to the liver are thought to be necessary to induce the classic carcinoid syndrome of episodic flushing, tachycardia, and diarrhea due to large releases of serotonin. Urinary levels of 5 HIAA should be evaluated in these cases as the metabolic product of this large serotonin release. The lung, thymus, mediastinum, and pancreas are also sites to find carcinoids.

Some interesting reports in the pathology literature recently have shown that treatment of patients with Zollinger-Ellison syndrome with long standing H₂ antagonists has unmasked development of multiple microscopic carcinoid-like tumors within the wall of the stomach. This, I think, emphasizes the close association of the basic cell type between these two syndromes.

Foregut carcinoids involving the bronchial tree or the thymus are thought to produce lower levels of serotonin but have a higher production of 5-HT and ACTH than midgut or hindgut carcinoids. Thymic carcinoids have been associated with the MEN I syndrome since the early 1960s with Williams’ report of the association of bronchial carcinoids and glandular adenomatosis, and Rose’s report of mediastinal endocrine neoplasms in patients with multiple

adenomatosis in 1972. Only 23 cases could be identified in the literature associating thymic carcinoid with MEN I syndrome in the 1992 report by Martha Seigler from the National Cancer Institute.

The majority of patients were men (91%), with a median age of 37 years. Most of them were asymptomatic and the tumor was found incidentally, but when symptomatic they had local pain, shortness of breath, and airway obstruction when localized to the chest or mediastinum. These patients had a high incidence of advanced disease as well as metastatic disease including lymph nodes, skin and multiple other organs. One-third of these patients with thymic carcinoid had Cushing's syndrome secondary to tumor secretion of ACTH. That makes one wonder about the hyperglycemia that was noted in our patient today. It would be nice to know if the ACTH assays had been done or could be measured in this patient. Of note, of the 23 patients that Dr. Siegler identified, only three were alive without metastases at six months, one year and five years after treatment. This association of carcinomas with MEN I syndrome has led to a review by Duh et al in the 1987 *American Journal of Surgery* in which they noted that patients with MEN I and thymic carcinoid had an 88-percent incidence of hyperparathyroidism; 39 percent of patients with hyperparathyroidism had thymic carcinoid.

Based on these findings and the dismal outcome of patients that Dr. Siegler reviewed, they recommended that patients with foregut carcinoid in the thymus or bronchial tree undergo screening for other endocrine tumors and that patients with hyperparathyroidism in the MEN I syndrome undergo a thymectomy at the time of their neck exploration. Neither radiation therapy nor chemotherapy seemed to offer the patients reviewed by Dr. Siegler much benefit.

Wide local excision is the treatment of these carcinoid tumors. Symptoms related to endocrine secretions are treated symptomatically with ciproheptadine and methylsergide (serotonin antagonists) and cimetidine and phenoxybenzamine to prevent kallikrein release. Most recently, and probably most widely used, is the somatostatin analog octreotide, which decreases serotonin release. Octreotide seems to be much better tolerated than other regimens and helps control not only the symptoms but perhaps the growth of the tumors as well. Carcinoid tumors, particularly in association of the thymus-MEN I syndrome, are noted to metastasize to a wide variety of places including the skin and region-

al nodes, although hepatic metastases in the carcinoid syndrome have not been reported in this situation. The usual treatment is local excision if possible, and a combination of doxorubicin, 5FU, and streptozocin. More recently alpha interferon in combination with octreotide is gaining more interest in controlling growth and symptoms.

Based on the clinical scenario of this patient and the x-ray findings that we have seen, I suspect these retroperitoneal masses represent metastatic carcinoid. Certainly, the pathologic findings will be helpful and might lead us to some more biochemical determinations not only for this patient, but for the rest of his family.

Question: On the basis of your suspicions, would you order a serum gastrin level for the possibility of detecting a metastatic islet cell in that area? Secondly, would you comment on indium-labeled octreotide scanning to identify metastases in the retroperitoneal areas?

Dr. Alex Jacocks: To do a serum gastrin wouldn't be a bad idea, particularly if we did a stimulation. The patient has a number of reasons why he might have elevated gastrins, including the H₂ antagonists he is taking. The history of known previous gastrinoma and the question of the cystic formation in the head of the pancreas on CT scan are of concern. I think that these retroperitoneal masses would be an unusual presentation for recurrent gastrinoma. Also, therapeutically I am not sure if it would make too much difference. There was good localization of the tumors on the CT scan, so I don't know if the labeled octreotide would tell us much more or not. I suppose it might identify other lesions that had not been seen on CT. If other diffuse sites were identified, it might make you think that this would not be worth surgical exploration if it was not resectable. Still, I think with this suspicion of a recurrent carcinoid, the best hope of controlling his symptoms is debulking the tumor as much as possible.

Question: Soft tissue tumors, although you felt were less likely, certainly wouldn't be expected to light up with octreotide, whereas other tumors in the differential would. So might it help to sharpen your definition of what you were going to accomplish before you went in?

Dr. Alex Jacocks: That is a good thought. The treatment for the soft tissue tumors is radical debridement and it would be helpful if we knew that was not the case.

Pathology

Matatoshi Kida, MD

Surgical pathology received four different specimens on different occasions. The first specimen from the mediastinal lesion was $19.5 \times 15.6 \times 9.6$ cm with a 6.2 cm fragment of attached lung and pleura. Figure 14A is one of the representative sections of the tumor from the mediastinum showing an area of hemorrhage and the globular arrangement of the tumor with areas of yellow connective tissue. Microscopic study showed nests of the tumor cells in a medullary pattern with thin connective tissue between individual nests, and areas of cholesterol clefts, necrosis and fibrosis. In the periphery were foci of lymphocytes and tumor cells in fibrotic stroma, which may represent residual thymic tissue. Some tumor nests contained central necrosis. Microcalcifications were present, and the tumor extended to the adjacent lung. Cytologically, the tumor was variable in nuclear size and shape and the cytoplasm was lightly eosinophilic, without discrete cell borders (Fig. 14B). The cytoplasm also gave a slightly bubbly appearance. Nuclei showed a dispersed chromatin pattern with some small condensation of chromatin giving a vesicular appearance. One or two prominent nucleoli were also seen in some cells. Immunohistochemistry showed some areas positive for cytokeratin.

The Grimelius (silver) stain for argyrophilic granules was focally positive, whereas neuron-specific enolase (NSE) was equivocally positive. Interestingly, vasoactive intestinal polypeptide (VIP) was very faintly positive in the peripheral portion of the tumor. [Table 2(A)] Electronmicroscopy showed cytoplasmic, 130 to 230 nm, membrane-bound dense core granules. (Fig. 14C) These features are highly suggestive of neuroendocrine etiology. The following is a list of studies which showed negative results: mucin, chromogranin, serotonin, insulin, and gastrin. This case was signed out as poorly differentiated carcinoid, and the term "carcinoid" was used to express a neuroendocrine tumor in general, not a typical carcinoid, because the 1980 WHO classification of endocrine tumor uses "carcinoid" to represent any neuroendocrine tumor.

The second specimen was from the pancreas. The entire specimen measured $6.0 \times 5.0 \times 4.0$ cm, with a pink-light tan nodule, measuring 2.7 cm in maximum diameter, showing a poorly demarcated border to the surrounding pancreatic tissue. Some areas of cystic change

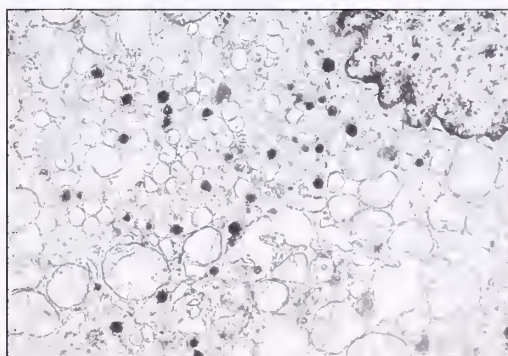
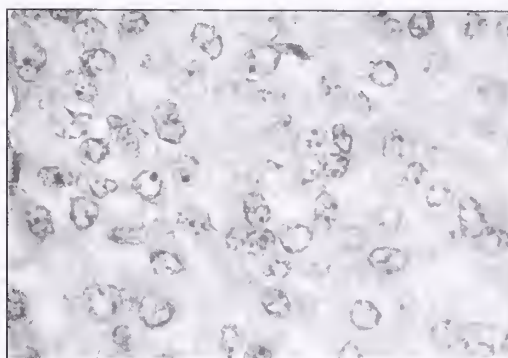


Figure 14.

- A.** The mediastinal tumor showing a prominent star-shaped central sclerosis and area of hemorrhage.
- B.** The tumor cells showing moderate nuclear pleomorphism with disperse chromatin pattern and one or two prominent nucleoli in some cells.
- C.** The electronmicrograph showing cytoplasmic membrane-bound dense core granules measuring 130 to 230 nm in diameter.

Table 2. Special Study Results

	mediastinum (A)	pancreas (B)	retroperitoneum (C)
Mucin	neg	neg	neg
PAS	neg	neg	neg
CEA	neg	neg	neg
Keratin	+ some cells	++	++
Vimentin	neg	neg	neg
Grimelius	some faint	some +	some +
NSE	some +/-	peripheral +	++
S-100	neg	+	++
Chromogronin	neg	+ acc. cells	++
Serotonin	neg	neg	neg
Insulin	neg	neg	neg
Gastrin	neg	neg	neg
Glucagon	—	faint	—
Somatostatin	—	very faint	—
VIP	peripheral faint	+	+

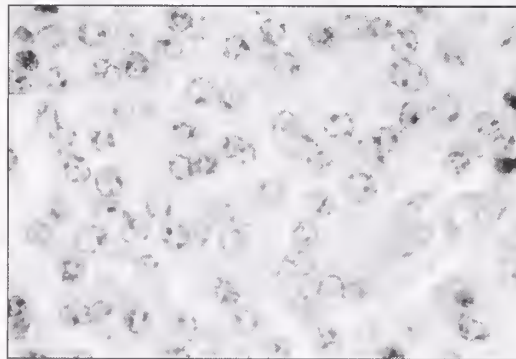


Figure 15. The pancreatic tumor cells showing rather uniform size and appearance. The nuclei show a prominent condensation and clearing of nuclear chromatin, giving a "salt-and-pepper" appearance.

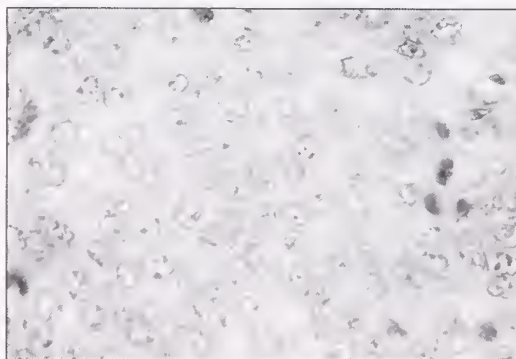


Figure 16. The retroperitoneal tumor cells showing moderate nuclear pleomorphism with disperse chromatin pattern and some prominent nucleoli, a similar appearance to that of the first mediastinal tumor.

were also seen in the nodule. Microscopically, the tumor showed a trabecular and acinar pattern of one to two cell-thick cords and small alveoli with areas of hyalinized fibrotic stroma.

Most of the tumor was encapsulated with a thin fibrous pseudocapsule separating the tumor from the neighboring normal pancreas. However, in the other area, the tumor penetrated through the pseudocapsule and involved nearby soft tissue. One section showed a large blood vessel with a nest of tumor cells in the lumen. Cytologically this tumor was slightly different from the previous tumor. The cells were more uniform in appearance with a prominent pattern of condensation and clearing of nuclear chromatin material (Fig. 15), similar in appearance to normal islet cells. The keratin stain was positive, as was the Grimelius stain in some cells. A neuron-specific enolase (NSE) stain was positive. The S-100 protein stain was faintly positive in some areas, and occasional cells were positive for chromogranin. Insulin and gastrin stains were negative. Glucagon and somatostatin stains were faintly positive in some tumor cells. Vasoactive intestinal polypeptide (VIP) stain was positive in some of the tumor cells and equivocal in the others. Mucin, PAS, CEA and vimentin stains were negative. [Table 2(B)]

The third specimen was of the parathyroid. It measured 2.5 cm in maximum diameter and the entire weight was 1.0 gram. The specimen showed a very well circumscribed oxyphilic adenoma with a thin rim of normal parathyroid tissue. Cytologically the adenoma showed a uniform nuclear appearance and finely granular eosinophilic cytoplasm.

At the time of the present hospitalization, three separate specimens were received. The first was from the inferior retroperitoneum and measured 5.5 cm in greatest diameter. The second specimen was from the mediastinum and measured 3.2 cm in maximum diameter. The third specimen was from the upper portion of the retroperitoneum and measured 4.2 cm in maximum dimension. Microscopically, all of them showed a neoplasm with a medullary pattern similar to that of the first mediastinal tumor. The nuclear appearance and the cytoplasmic appearance were very similar to those of the first mediastinal tumor. (Fig. 16) The tumor also showed active involvement of the surrounding connective tissue and an area highly suspicious for intravascular involvement. Immunohistochemically, keratin stain was strongly positive. The silver stain was positive in some cells, as were the neuron-

specific enolase and S-100 protein stains. Chromogranin stain was positive and some tumor cells showed a positive immunoreactivity for VIP. Mucin, PAS, CEA, and vimentin stains were negative. [Table 2(C)]

All special studies and histological appearances suggested that all these recent neoplasms were neuroendocrine-type tumors. The question is, did they all arise in the thymic area or the pancreas? Cytologically they are similar to the mediastinal tumor. Thus, the tumor found in 1997 is thought to be either recurrent or metastatic from the mediastinal tumor.

Question: An alternate synthesis of this case is that the patient didn't really have MEN I at all, but that he had a VIP-producing tumor that perhaps started in the pancreas which is why it is easier to find there with metastases to the thymus. VIP is a secretagogue for prolactin, and perhaps is driving the prolactinoma, whereas the parathyroid adenoma might be an incidental finding, both being common.

Dr. Masatoshi Kida: The origin of the neoplasm is difficult to determine. However, the first mediastinal tumor and the last retroperitoneal tumor are quite similar. But whether they came from the pancreas or originated from the mediastinum is still difficult to prove.

Question: This question is for the endocrinologists and oncologists. Should this patient be on interferon and octreotide or some other chemotherapeutic regimen at this point?

Russell Postier, MD: Symptomatically, I saw the patient about six weeks ago and he is doing remarkably well. It is amazing that these small tumors were causing significant pain, but they seem to have been.

Dr. David Kem: Experience in this area is limited. I am not aware of any literature about suppression of this particular kind of carcinoid. There have been experiments using indium-labeled octreotide not only to localize tumors but to deliver radiation to the areas; the experience to date is similar to that of pheochromocytomas, they are not able to deliver sufficient energy. The NIH has, I think, a program where some patients treated in such a fashion are being followed over a period of time.

Dr. Leann Olansky: It is my understanding that octreotide is used mostly to control symptoms, primarily diarrhea. I don't think we have any data to suggest that octreotide would be tumorostatic or tumorocidal. However, it sounds like this patient has relatively small tumors compared to his huge original primary; so perhaps interferon might make sense, since he has come back with relatively much smaller disease in a three- or four-year period of time.

Dr. Fred Silva: I have a question about the gene. You mentioned that MEN I seems to be located somewhere on 11q13 and seems to be a tumor suppressor requiring a double hit to knock out both alleles. The standard question is, how come you get that in certain endocrine organs and you don't get it in other endocrine organs or in any other places throughout the body?

Dr. Leann Olansky: Well, that's why the MEN I is so variable. Sometimes it will turn up in the pancreas and sometimes it will turn up in the pituitary. The parathyroids obviously are just likely to get hit because when you look at many of the sporadic parathyroid adenomas, they have a double hit, but one was not genetic. So, I think it may be a function of how much turnover you get in those.

The Authors

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Physician-Older Patient Communication During the Transition from Independence to Dependence

Jon F. Nussbaum, PhD

This article reviews recent research regarding the communication between physicians and their older patients who are passing from independence to dependence. Major findings from these studies are summarized with a discussion of how the context of the medical encounter, the physical, cognitive and language changes related to age, the amount of time permitted for a medical encounter, the managed care environment, and the presence of a companion can affect competent communication between a physician and an older adult. The article concludes with a comment about the need to educate current and future physicians on the complexity of communicating effectively with older patients.

Physician-Older Patient Communication During the Transition from Independence to Dependence

The health care community is increasingly becoming aware of the importance of competent communication between those individuals providing health care and those individuals receiving care. During the past 10 years, scholars from numerous disciplines both on and off health science center campuses have stressed the importance of systematically studying the process of effective communication within the medical encounter with older adults.¹⁻³ Because of numerous "special circumstances" surrounding a medical interaction with an older adult, this article will focus on the current research findings and the implications of those findings to assist physicians in interacting effectively with their older patients who are passing from independence to dependence.

Physician-Older Patient Communication

It would not be an understatement to suggest that the "business" of health care is in a process of great change. From the physical, biological, and technical to the interactive, the way a medical encounter with an older adult transpires is often not a simple interaction. Excellent literature reviews do exist that discuss the major research programs investigating the physician-older patient relationship and the communication that transpires within that relationship.¹⁻³ Several important communication concerns have been highlighted within that literature and are thought to have a significant impact on how a physician can anticipate then manage the communication with an older patient who is passing from independence to dependence.

First, the context of the medical encounter will influence the communication between physician and patient.⁴ Older individuals who visit a physician in a clinic, a hospital, or within a home maintenance organization will find physicians who are rushed from being required to see many patients of all ages in a limited period of time. The older patients typically present with more chronic diseases, have longer medical histories, may move significantly slower, and are likely to be accompanied by a spouse or an adult child.

The communication environment where the medical encounter takes place has the potential to be rushed, overcrowded, and medically complex. In addition, factors such as the diagnosis, the reason for the visit, and whether this visit is an initial encounter or a repeat visit will affect the nature of the interaction.⁵ Some older

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patients also reside in long-term care facilities or in assisted living centers. The very nature of these institutions can dramatically affect communication. Technology that permits physicians and patients to interact over fiberoptic telephone lines is a necessity in large rural states like Oklahoma. Research investigating the effect of telemedicine and the older patient-physician relationship has yet to be performed. However, it is not unreasonable to assume that such technology can present numerous obstacles to effective communication.

A second important concern found within the literature is the intergenerational nature of the physician-older patient encounter. Most physicians will be considerably younger than their patients. At times, the physician can be 50 or 60 years younger than the patient. Ory, Abeles and Lipman report that the current cohort of older adults have different attitudes toward health care than younger individuals.⁶ Younger women are more accepting of mammography. Older people, in general, report higher frequencies of preventative health behaviors, can be more compliant with treatment regimens and tend to be more responsive to health threats.

Older patients have been reported to interact differently with their physician than younger patients.^{2,7} Older patients ask questions less frequently of their physicians, talk less about their problems, give less information in detail, and are less assertive than younger patients.

Of importance is the finding that the older patients who do ask more questions often wait until the end of the longer medical interactions. Results of coded medical interactions with older patients also revealed that physicians were more likely to raise medical topics with their older patients while the older patients were more likely to raise psychosocial topics and initiate conversation concerning the physician-patient relationship.⁸ When the physician raised a topic, he/she was much more likely to discuss that topic in more detail. The authors report that this result may signal a problem for older patients who wish to have their concerns addressed by the physician only to find the physician's concerns taking up most of the time.

Bergstrom and Nussbaum investigated the communicative style of older and younger adults.⁹ They found that as we age, our interpersonal conflict strategies change. As younger adults, we are much more likely to engage in competitive tactics during an interaction. As we age beyond 65, we use more cooperative tactics

during interpersonal conflict. The younger physician may use communicative strategies during a medical encounter with an older patient that do not work well with those strategies of the older patient.

An additional intergenerational difference that may have significant impact upon the medical encounter relates to medical decision-making. Younger and older patients differ in their involvement and participation in medical decisions.² Substantial evidence exists that the current cohort of older adults do not want as much involvement in medical decisions as younger adults. In addition, physicians are less likely to share the medical decision with their older patients.¹⁰ This complimentary behavior in decision-making can be the reason why older patients report less agreement with their physician than younger patients concerning the main goals and primary medical problems of the encounter.¹⁰

A major concern for effective communication within any encounter with an older adult is the presence of ageism.^{11,12} Ryan, Giles, Bartolucci, and Henwood created the communication predicament model of aging to explain and to help us to understand the process of problematic intergenerational communication within the medical encounter due to negative stereotypes toward the aging process or an older adult.¹³ According to this model, a younger physician is approached by an older patient. The physician notices certain physical cues that trigger intergroup categorization and the associated age stereotypes. These "old age" stereotypes invoke certain types of speech behavior that may not serve the older individual or the younger physician well. These stereotypes can have a profound effect upon the interaction and can lead to a loss of self-esteem and control on the part of the older adult and at the same time reinforce negative stereotypic behavior on the part of the physician. Nussbaum and his colleagues reason that this process of stereotypic attitudes and behaviors can lead to significant communicative problems within the medical interaction with older adults that in turn produce ineffective medical encounters.¹⁴

Another major issue from the literature on physician-older patient communication is psychosocial talk in medical encounters.¹⁵ Greene and Adelman consider psychosocial talk to be any physician-older patient conversation that refers to the psychological and social aspects of patients' lives that influence and are influenced by disease.¹⁵ Without an understanding of the

patient that directly emerges from the psychosocial talk within the medical encounter, the potential for that medical encounter to be therapeutic will be diminished. Findings from several initial investigations into the frequency, content, and quality of psychosocial talk with older patients points to a general lack of attention to the psychosocial domain of patient lives.¹⁵ Greene and Adelman show great concern that when the value of the psychosocial domain of communication is diminished, the therapeutic potential of the physician patient relationship is undermined.

Challenges to Effective Physician-Older Patient Communication

The vast literature that studies or summarizes the communicative behavior of physicians and older patients more often than not concludes with a statement that communication between older patients and their health care providers during medical encounters is suboptimal.¹⁶ Several of the factors that produce this sub-optimal communication process (that can become a difficult challenge for both the physician and the older adult) include the physical, cognitive and language changes that occur as we age, the quantity of time within which the medical encounter must take place, older patients who are overly verbose, the changing demands of the managed care environment, and the companion who often accompanies many older patients.

Physical, Cognitive and Language Changes with Age

Nussbaum, Hummert, Williams, and Harwood point to numerous physical, cognitive, and language changes related to aging that can influence an older person's ability to communicate effectively.¹⁷ Physical changes do occur in our general appearance, our dental behavior, our weight and metabolism, our cardiovascular system, our reaction time, the functions of our organs, our strength, and changes in our senses as we age. Perhaps, most important for the purposes of this chapter, are age-related changes that occur to our hearing.

Presbycusis, age-related hearing loss, can affect close to 40 percent of individuals over the age of 75.¹⁸ Because of this hearing loss, older adults may have less confidence, may initiate communication less frequently, may suffer from social isolation and depression and may have numerous misunderstandings in any interactive encounter. The physician must be aware that older adults are experts at hiding their level of

hearing loss. In addition, physicians must have multiple communication strategies (such as asking the patient to repeat instructions or utilizing a companion) to not only recognize hearing loss, but to ensure a competent communicative encounter with an older patient who suffers from presbycusis.

Age-related cognitive changes can also affect a competent medical encounter.¹⁴ Individuals with advancing age have been shown to manifest declines in their ability to process and produce language. Furthermore, pathological changes in cognitive abilities, such as Alzheimer's dementia, are definitely connected to reduced communication competence.¹⁹ In addition, attitudes towards, beliefs about, and stereotypes of older adults can be related to communication difficulties in the encounters with older adults.

Patronizing speech utilized within medical inter-generational interactions has been shown to be quite common.¹¹ Patronizing speech is distinguished from normal adult speech by being slow, oversimplified, and overly warm, in combination with clarification strategies such as careful articulation. Patronizing speech is often found in health care interactions being directed toward older patients by younger health-care providers. This type of speech can sometimes be utilized to communicate power and dominance to the patient and thus can contribute to interaction difficulties.

Time

It has been widely reported that the amount of time a physician can spend with an older adult will have significant impact upon the physician-older patient relationship.²⁰ For numerous reasons, older patients simply need more time within a medical encounter than most younger individuals. The extent to which the medical interaction with an older adult is rushed or the older patient is coerced to "pick up the pace" may lead to the loss of important information and the possibility of serious misunderstandings on the part of both interactants.

Off-Target Verbosity

An abundance of talk and a lack of focus that produces an extreme amount of irrelevant speech has been labeled off-target verbosity.²¹ Given the importance of time within the medical encounter and the patience required to adapt to an older adult who begins to talk excessively on what appears to be irrelevant topics, off-target verbosity can be a major problem for

a competent communication encounter. Gold, Arbuckle, and Andres report that up to 21 percent of their older subjects can be classified as "Extreme Talkers."²¹ Thus, it is highly likely that a physician will come in contact with older adults who manifest off-target verbosity. Research has yet to investigate exactly what communicative adaptations must be made by physicians to maintain a productive medical encounter with an overly verbose older adult. To this point, physicians should be made aware that off target verbosity will occur in some older patients and can impede the progress of effective medical care.

The Managed Care Environment

Managed care in all of its various forms (HMOs, PPOs, etc.) is having a dramatic impact on not only the business of health care, but on the way care is provided by both formal and informal caregivers. Perhaps the most dramatic physician-patient relationship changes can be found within the caring relationships of older adults.²² While much has been written in the popular press concerning the "disaster of managed care" for quality health care in this country, managed care plans have the capacity to enhance the quality of communication between the health care provider and the older patient. Sofaer suggests that managed care plans can actually increase the time older adults spend with health care providers by utilizing interdisciplinary teams. These teams can concentrate more on psychosocial matters and make the entire medical encounter more pleasant and efficient.²² In addition, Williams and Nussbaum have suggested that the informal supportive relationships that surround an older adult will become more important in the preventative and rehabilitative care of evolving older individuals. In both the case of more interdisciplinary team involvement and in greater informal support from family and friends, physicians will need to learn how to adapt their communication skills to become an effective health care manager for older adults.

The Companion

Often, a visit between a physician and an older patient includes an adult child or a spouse who is the caregiver for the patient.² The typical dyadic interaction is transformed into a much more complex triadic encounter. Patient companions are likely to ask questions on behalf of the patient, may respond for the patient, may wish to visit with the physician without the

patient being present, and may take up valuable time with concerns not directly related to the patient's medical condition. The physician may be placed into the rather uncomfortable position of having to manage not only the interaction with the older patient, but having to manage the interaction between the companion and the older patient as well as the companion and physician.

Conclusions and Suggestions

Social scientists and health researchers have systematically investigated the communicative behaviors of physicians and their patients for the past 30 years. However, research into the unique interactive complexities found within a medical encounter with an older adult has only recently received serious attention from scholars across multiple disciplines. The great majority of this research has been descriptive in an attempt to understand the dynamic nature of communication between a physician and the older patient. It is certainly possible that someday interventions to insure competent physician-older patient communication across multiple contexts and numerous situations will be available. Today, research can only point to various communication behaviors that occur within a medical encounter and the various challenges that physicians, older patients, companions, and others must address.

There are no simple "prescriptions" or "golden bullet" remedies to ensure competent communication with an older patient who is changing from independence to dependence. However, much of the responsibility to ensure a competent interaction with an older patient will remain with the physician. The "typical" interactive schedules and interview tactics taught at most major medical centers that have served physicians quite well for numerous decades are not sufficient to meet the complex nature of the physician-older patient interaction. In many cases these structured interviews can be counterproductive and may serve to reinforce negative stereotypes of aging and older adult behavior that already exist in the minds of physicians.

Two pragmatic, proactive educational experiences can serve to someday improve the effectiveness of physician-older patient interaction. The first is to make it possible for physicians to read or learn about the most current physical, psychological and social research on the aging process and the relationship of aging to communicative and interactive competence. A second step is to provide medical students with an

innovative educational experience targeted to improve health care for older patients.

The Department of Geriatric Medicine at the University of Oklahoma is about to begin an educational experience with all medical students that may help to inform future physicians concerning many of the communicative issues raised in this article. The Senior Mentor program will introduce medical students to healthy older individuals and thus begin a dialogue about the aging process. These discussions will introduce the students to the normal physical, cognitive, and language changes that occur with age and to the various concerns older adults have when interacting with the medical community. Older adults worry about the amount of time permitted for a medical encounter, the process of asking and answering important questions of the older adult, the possible effects of managed care on the delivery of quality care for an older adult, and the informal support system that surrounds the older adult. The Senior Mentor Program will serve as a first step to enlighten and to improve the communication within a physician-older adult medical encounter.

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Correction...

The name of one of the co-authors of "Recent Advances in the Treatment of Alzheimer's" as published in the November 1998 issue of the *Journal*, was incorrectly listed. His name should have read "Martin R. Farlow, MD."

Comparison of Influenza Immunization Rates for Oklahoma Medicare Patients: 1995, 1996 and 1997.

James S. Millar, MD; Scott A. Scheffler, MAppSt; Cynthia K. Murray, PhD; Dale W. Bratzler, DO, MPH

The Health Care Financing Administration has reported influenza immunization rates since 1994. The Department of Health and Human Services has set a minimum national target rate for the annual immunization of the elderly population at 60 percent, as published in *Healthy People 2000*.

The Oklahoma Foundation for Medical Quality analyzed the Medicare claims data for Oklahoma for the 1995, 1996, and 1997 influenza seasons. Additionally, we reviewed the Behavioral Risk Factor Surveillance System influenza immunization data for 1995.

Claims data for the 1997 influenza season show the immunization rate for the Medicare population of Oklahoma is 41.4 percent. The immunization rate for the African-American Medicare population was 22.3 percent for 1997, compared with 42.2 percent for the Caucasian population. The ten most populous counties in the state had a 9-percent higher rate of immunization than the other 67 counties.

The Medicare population in Oklahoma is not receiving the influenza vaccination at the target rate. Especially underserved are the African-American and non-urban populations. There appear to be opportunities for improvement in the provision of the influenza vaccination for the Medicare population of Oklahoma.

Introduction

Influenza remains a significant health problem in the United States. The combined reporting category, pneumonia and influenza, represents the sixth leading cause of death and the most common cause of death due to infectious dis-

ease.¹ In addition to excess mortality, influenza and associated complications account for thousands of excess hospitalizations and billions of dollars in health care costs.^{2,3} In a recent review of the impact of influenza on mortality in the United States, Simonsen and coauthors⁴ estimated that the 20 nonpandemic influenza seasons between 1972 and 1992 accounted for 426,000 excess deaths. Influenza during these regular, nonpandemic seasons accounted for far more deaths than occurred in the two most recent influenza pandemics of 1957-1958 and 1968-1969.⁴ Influenza is particularly problematic for the elderly. More than 90 percent of the deaths from influenza and pneumonia nationally are in the population aged 65 and above.⁵

The effectiveness of the influenza vaccine in preventing hospitalization, complications, death, and in reducing costs of care has been demonstrated in a variety of settings.⁶⁻¹⁵ Studies have demonstrated a reduction in hospitalizations for pneumonia and influenza of 30 to 50 percent,⁶⁻¹¹ prevention of acute and chronic respiratory conditions of 17 to 32 percent,^{8,9} and a reduction in death from all causes of 27 to 68 percent.⁶⁻¹¹ Immunization against influenza has been associated with considerable cost savings, estimated at \$95 per person vaccinated.^{9,12-15}

Recommendations for the prevention and control of influenza have been recently published by the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC).⁵ All persons aged 65 years or greater, and adults and children who have chronic disorders of the pulmonary or cardiovascular systems should receive the vaccine. Specific recommendations

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Comparison of Influenza Immunization Rates

Table 1. Rate of Influenza for Eligible Fee-for-Service Medicare Beneficiary by Year and Demographic Categories

	Overall	1995	1996	1997
Eligible beneficiaries		390,942	382,738	376,229
Overall rate	41.1	41.2	40.8	41.4
Counties				
Urban	43.9	42.4	43.5	45.9
Rural	38.3	39.8	38.1	36.9
Race				
White	42.0	42.1	41.7	42.2
African-American	21.2	19.9	21.5	22.3
Sex				
Male	39.9	40.1	39.8	39.9
Female	41.9	41.8	41.5	42.4
Age				
65-74	39.5	39.2	39.5	39.8
75-84	45.2	45.5	44.6	45.4
85+	36.6	36.7	36.2	37.0

for the immunization of residents of long-term care facilities, pregnant patients, health care workers who may transmit the disease to high-risk patients, patients infected with the human immunodeficiency virus, and other target groups are presented by the ACIP. The ACIP also recommends specific strategies for implementing the influenza vaccination recommendations.

In addition to the vaccination of patients in physicians' offices, clinics, and health-maintenance organizations (HMOs), the ACIP recommends strategies for immunizing patients in episodic care facilities (e.g., emergency rooms), nursing homes, outpatient facilities (e.g., hemodialysis centers), home health care nursing organizations, and community programs for senior citizens (e.g., retirement communities and recreation centers.)

Both the ACIP and the American Hospital Association recommend administration of the influenza vaccination prior to discharge to all eligible persons aged 65 years or greater and younger persons with high-risk conditions who are hospitalized at any time from September through March.^{5,16}

In spite of the fact that the influenza vaccine is very effective⁶⁻¹⁵ and has been a national Medicare Part B covered benefit since May 1993,⁵ it remains underutilized.¹⁷⁻¹⁹ National health objectives have been set for the end of the decade, as listed in the Healthy People 2000.²⁰ One of these objectives is to have a minimum of 60 percent of the population aged 65 years and over receiving their annual influenza immunization. In addition, the Health Care Financing Administration (HCFA) has established a special focus for home health agencies and their rate of patient immunization. The goal for this

population of beneficiaries is to immunize 80 percent annually.

The purpose of this report is to provide a current profile of the influenza immunization for the Oklahoma Medicare population. In addition to reporting rates of immunization of our Medicare population, we have made comparison of Oklahoma's influenza vaccination rate to that of surrounding states.

Methods

Based on a retrospective analysis of Oklahoma's Medicare Part B claims data influenza immunization rates from 1995, 1996, and 1997 were compared. Overall rates of immunization between September 1 and December 31 (defined as the flu vaccination window by HCFA) for the state were compared and also rates for beneficiaries in the inpatient and home health setting. Rates were also stratified by geographic and demographic categories.

Only claims submitted by March 31, for service between September 1 and December 31 of the prior year, were analyzed. Historically, providers of influenza vaccination submit more than 90 percent of all claims within this period. This data was then matched to the HCFA denominator file for that year. The HCFA denominator file contains information about beneficiary demographics, entitlement status, and HMO coverage. This data was used to restrict the study population to those beneficiaries that were Medicare Part B eligible, non-HMO, and age 65 or older. The immunization rates for states contiguous to Oklahoma for acute care inpatients, skilled home nursing care, and the Behavioral Risk Factor Surveillance System (BRFSS) were compared using summary data reported by HCFA.²¹

A Pearson chi-square was used to test for statistically significant differences between groups. However, due to the large number of eligible beneficiaries, the power of the statistical test was sufficient to detect very small differences in rates as being statistically significant. Unless otherwise noted all comparisons are significant ($p < 0.05$). It is therefore important to decide if the differences are also clinically significant.

Data analysis was done using SAS version 6.12 (SAS Institute, Cary, North Carolina).

Results

The immunization rates for eligible Medicare beneficiaries remained constant at 41 percent from 1995 to 1997. (Table 1) The Caucasian rate also remained constant at 42 percent while the

African-American rate, which was approximately half the Caucasian rate throughout the same time frame, increased from 20 percent to 22 percent. Rates did not change during the three-year time frame for either males ($p=0.15$) or females although rates for females were approximately 2 percent greater than the corresponding yearly rates for males. Beneficiaries 75 to 84 years of age had the highest overall rate (45%) compared to those 65 to 74 years (40%) and those 85 years and older (37%).

Approximately one-half of Oklahoma's Medicare Part B beneficiaries live in the 10 most populous counties.²² The combined rate of immunization for these urban counties increased from 1995 to 1997 (42% to 46%) while the rate for the other 67 rural counties decreased (40% to 37%). Immunization rates stratified by race within urban and rural counties showed a similar pattern for both Caucasian and African-American beneficiaries. (Figure 1) The rates increased in urban counties (Caucasian: 44% to 48%; African-American: 18% to 22%) and decreased in rural counties (Caucasian: 40% to 37%; African-American: 24% to 23%, $p=0.48$).

The largest increase in immunization rates during the three-year time interval occurred among African-American females, 65 to 74 years of age, and residing in an urban county (19% to 24%). Caucasian males, 75 to 84 years of age, and residing in a rural county accounted for the largest decline in rates (45% to 41%). The highest rate of immunization (53%) occurred in 1997 for Caucasian males, 75 to 84 years of age in urban counties. African-American males, 65 to 74 years of age in urban counties in 1995 had the lowest immunization rate (13%).

During the three-year period, only 35 percent of Oklahoma's counties demonstrated an improvement in immunization rates. (Figure 2) The largest increase occurred in Ellis County (41% to 54%) while the largest decrease occurred in Marshall County (53% to 31%). In 1995, Woods County held the highest rate of immunization (60%) during the time period. Coal County consistently ranked last in each year of the study. Their rate in 1997 (7%) was the lowest in the three studied years. Although the majority of the county rates have declined, the state immunization rate has held at 41 percent, primarily due to modest increases in urban county rates.

As compared to the surrounding states for the 1995 influenza season, immunization rates

Table 2. 1995 Rate of Influenza Immunization for Eligible Medicare Beneficiaries ^{21,22}				
	Overall	Acute Care Hospital Discharges	Skilled Home Nursing Care Recipients	BRFSS
United States	41.0	42.0	40.3	59.2
Oklahoma	41.1	42.5	43.8	60.8
Colorado	47.3	48.0	44.3	65.9
Kansas	45.9	47.0	46.7	58.7
Missouri	42.9	44.8	43.5	66.5
Arkansas	44.9	47.1	45.4	60.5
Texas	38.8	40.1	39.7	56.4

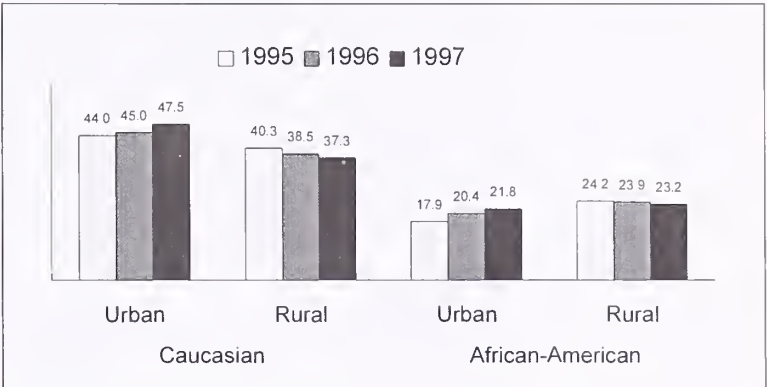


Figure 1. Immunization rates by Year, Geographic Area and Race.

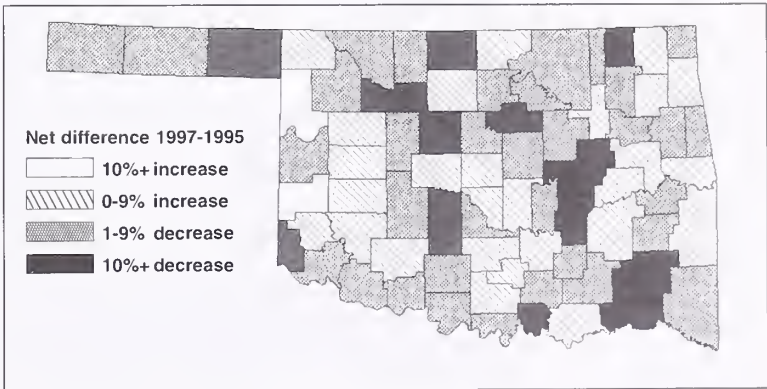


Figure 2. Net Difference in Influenza Immunization Rates.

for Oklahoma (41%) were lower than all but Texas. (Table 2) Nationally in 1996, Oklahoma finished in a tie with Georgia and Illinois for 36th. The U.S. rate in 1996, compared with the 1995 average, rose 2 percent (41% to 43%). The immunization rate in Oklahoma dropped 0.8 percent in 1996.

Patients discharged alive from an acute care hospital between September and December, who have not previously received the influenza vaccine, are candidates for immunization prior

to dismissal. Only 43 percent of the 30,948 Oklahoma Medicare patients dismissed alive from a hospital during this period in 1995 received influenza immunization from any source. Regionally, Texas had a lower rate of immunization. In 1996, Oklahoma's rate dropped to 41 percent. Texas again was the only state in the region with a lower immunization rate.²¹

There were 33,923 Medicare patients in Oklahoma receiving skilled home nursing care between September and December 1995. The rate of immunization was 44 percent for these patients. Regionally, Missouri and Texas had rates of immunization that were lower than Oklahoma, as was the national rate.²¹

For 1995 the immunization rate based on BRFSS data in Oklahoma was 61 percent. The median immunization rate was 59 percent for all states. Nationally, the states range from 44 to 70 percent. Regionally, Kansas and Texas had lower rates of immunization than Oklahoma.

Discussion

The influenza vaccination is underutilized for Medicare patients in Oklahoma. Both the non-urban and the African-American populations are especially underserved with respect to immunization. Why the minority population, both in Oklahoma and nationally, receives this preventive measure at a rate one-half of the Caucasian population is a matter for discussion.²³

CDC has published recommendations for increasing the influenza immunization rate. CDC recommended sites for immunization that include outpatient clinics, physicians' offices, acute care facilities, nursing homes, acute care hospitals (given at the time of discharge) and for the homebound, by skilled nursing care personnel.² A recent study of patients dismissed from the hospital with a diagnosis of pneumonia reported only 8.5 percent of the unimmunized eligible patients received the influenza immunization after the hospitalization.²⁴ Data from HCFA for 1995 demonstrated that 83 percent of the 8,654 home health agencies (HHA) failed to immunize any of their patients. Between September 1995 and December 1995, 1.6 million Medicare patients received home health care. The average annual number of visits per patient by HHAs is 72.

Multiple studies have displayed that the physician recommendation is the key factor to a patient receiving an influenza vaccination. Up

to 80 percent of the undecided patients will receive the immunization if the physician recommends it. Other states are looking at their data and working with providers on statewide efforts to improve the rate of immunization.²³⁻²⁷

There are two primary limitations to our data. The BRFSS is an annual telephone survey on the health habits of the entire population. Telephone surveys are conducted by the state health departments. BRFSS influenza immunization data is collected on a biennial basis. 1997 BRFSS data on influenza immunization rates will not be available until late 1998. BRFSS rates are generally considered over-estimates of the true rates. Historically, BRFSS rates run 10 to 20 percent higher than the claims-based rates.

The claims-based rates reported within this paper are actually estimates of the true rates within the Medicare population. Since a claim was not always submitted for every immunization, these rates tend to be biased and underestimated. This bias has been reduced though by carefully defining a denominator that does not include populations where claims are largely missing from the point of view of the peer review organization. HMOs do not file an influenza immunization claim with HCFA, therefore HMO members were excluded. In Oklahoma, the proportion of the Medicare population enrolled in an HMO is rising, with a resultant drop in the absolute number of eligible beneficiaries in the fee-for-service population.

Oklahoma's medical community will need to be vigilant in offering all their patients the proper preventive services. As judged by the data available, Oklahoma health care providers have opportunities for improvement in offering and providing influenza immunization to the Medicare population. With a short time left until the year 2000 and the minimum goal of 60 percent immunization against influenza for all Medicare patients, we will need vigorous efforts.

Conclusions

Immunization is an effective means of reducing the burdens of morbidity and mortality of influenza and pneumonia on the elderly population. The Medicare population in Oklahoma, especially the non-urban and the African-American, is not receiving the influenza immunization at the minimum target rate. Improvement in the rate of influenza immunization will require concerted efforts of all health care providers in Oklahoma.

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Required Disclaimer

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HOLIDAY FEATURE

Physicians Share their Favorite Holiday Memories

Christmas in New York

"My wife and I have been to New York many times, but never during the Christmas season. We arrived in New York on December 20th, spending every night attending a different show and enjoying the Christmas scenery," Dr. Andrews said. "We went to Saks, Bloomingdales, 5th Avenue, and Madison Avenue. The thing that struck us most about it was the excitement—we enjoyed being caught up in the crowds of people. And when we went to Rockefeller Center, we could feel the excitement of everyone there—young and old."

During their visit, the Andrews' took in several shows, including *1776*, *Titanic*, *The King & I*, and *The Radio City Music Hall Christmas Spectacular*, and dined in restaurants across the city, including an Italian restaurant on Park Avenue that provided meals for the Pope during his last visit to New York.

M. Dewayne Andrews, MD

Of Christmases Past

"It was my oldest daughter's first Christmas. We had just moved to Mangum, where I had just started my practice. We drove to Oklahoma City to buy a flocked tree from Horn Seed Company. It looked like a tree in the forest—it was flocked green from all angles, and then flocked white from above, to look like snow. That year, after Christmas, we saved the tree and wrapped it in plastic. Since it was flocked, it still looked green, even after two years. We used it again the following Christmas."

Dr. Thiessen says that he also enjoys Christmas with his grandchildren. "Of course, all Christmases were good when the kids were little, because Christmas is for children. Now we enjoy the holiday with our grandchildren. I am still amazed at the excitement and sparkle in their eyes at Christmas."

Harold Thiessen, MD

Wanting a Christmas Call

During my first year in private practice in Madill, Oklahoma, I found myself on emergency room duty for Christmas Eve and Christmas Day.

- Have you ever noticed that the "new kid" in the medical community always gets the Christmas duty?
- Is this assignment of duty because everyone else has had too much ER duty?
- Or is it because everyone else understands that there are great blessings to share during this season of the year?

None the less, poor Dr. Pontious was on call, in this small Oklahoma town, before the days of emergency room physicians. ER call was from home. Which typically meant that I would have to pull myself out of bed and wander back to that one room ER, at least once or twice a night, after running the ER "clinic" until midnight or so.

As a small town doctor, you looked with envy at your "big city" colleagues, they were able to stay snuggled in their Christmas Eve bed, with the electric blankets, dreaming about the sugar plum fairy and have the ER doc see the patients. It was with envy that I drove back to the ER on Christmas Eve, battling the ice and snow that had fallen, frustrated that I (and I alone) was carrying the burden of health care for this community of three thousand, while my family was celebrating Christmas Eve.

- Do you note the irony of this statement...
- On the one hand, it is my Christian belief that I have been "called" to provide compassionate care to patients in distress
- Yet I am angry because those same patients have interfered with my celebration of Christ's birth...
- In retrospect I listen and I learn ...

In that one room Emergency Room was a child, a stranger, brought by his mom and dad, because of his shortness of breath. He had blond hair and was in marked respiratory distress. His normally pink lips were cyanotic...that dark blue that I have learned to despise. His respiratory rate was much greater than his baseline rate. He was diaphoretic and had wide eyed fear regarding his breathing.

I always get a tight feeling in my throat when I see this type of thing. I always have a faint wave of nausea, while my brain fights to sort out the approach that must be taken. I always fight off the confrontation of what "could" happen, usually to no avail.

Josh had never seen me before, his parents did not know me, and they typically received care outside of our community...with the big city specialist...who had ER coverage. The roads were ice covered all the way to Oklahoma City and they did not dare travel the roads. So they came to the one room ER to see this small town family physician.

After my assessment, I began to start the interventions. I started with the basics, doing the inhalation treatments, pushing the IV drugs of the era, and starting the steroids (so that life tomorrow would be better). The more I worked with the child, the worse he got. I was only minimally improving his oxygen and yet he was beginning to hold on to carbon dioxide and beginning to fatigue. We worked most of the night with Josh: I began to mentally prepare for intubating this child, although the small hospital was ill prepared for this. I began to make sure that we had the correct size of endotracheal tube, I began to talk with the respiratory therapist about the last time that she had seen a five-year-old with asthma on a ventilator.

It was a time of anxiety. I stayed in the hospital for the rest of the night.

When I awoke later that morning, Josh continued to do poorly. The nurses had made an attempt to make this patient and his family comfortable.



Proof of Santa's Existence

As a father, Jack Beller, MD, recalls the year he made Christmas memories for his daughters. "I guess it was the year our two girls were about four and seven. A few weeks before Christmas, we had a friend dress up as Santa Claus. We had the whole costume and everything. We videotaped him as if he were coming out of the fireplace, placing gifts under the tree, and looking in our daughters' rooms to check on them while they slept. We stopped taping just as he was climbing back up the fireplace. On Christmas morning, when the girls got up, we showed them the video as 'proof' of what had happened the night before." His daughters, now 13 and 16, still remember it. "They talked about it for almost a year," Dr. Beller said.

Jack Beller, MD



*Julie and Kendall Beller
Christmas 1989*

You could sense the anxiety in the room because of his breathing. The parents were kind, they never questioned my approach, I worked to make sure that they understood what I was doing.

Someone had placed a white polar bear stuffed toy on Josh's pillow. Josh was too ill to appreciate the gesture.

He continued to struggle for each breath.

I called consultants in Oklahoma City. Have you ever attempted to find physicians on Christmas Morning? It was a hard go, but persistence prevailed. After determining what I had done and the status of the child, the recommendation was to transport the child to Oklahoma City.

I asked them if they realized that the roads were icy, they replied that they understood, but the helicopters were not flying because of the unfavorable weather. An ambulance ride to Oklahoma City, over the Arbuckle Mountains was the only approach.

Riding in the back of an ambulance was a new experience for me. In a way it aggravated my nausea, as I began to continuously give Josh breathing treatments. I prayed for speed, although the ice precluded anything over 20 miles per hour. Josh continued to breathe rapidly.

Josh talked about what he wanted for Christmas, asking his mom if he was going to miss Santa. She reassured him that he would not miss anything. The conversation on Josh's end was in two word snippets, because he didn't have the breath for a complete sentence.

The ambulance fell silent between conversations. The back of that ambulance was all over both lanes of highway, because of the ice. But we progressed onward toward Oklahoma City.

Once there, Josh was whisked away in the ER, I attempted to give an oral report to the resident and made sure that they had my written notes and lab work. They thanked me and I got back into the ambulance and we dissected our way back to Southern Oklahoma.

- Back to the one room ER.
- Back to my unopened presents.
- Back to a family that welcomed me with open arms.

Josh bounced into my office a couple of weeks later. He was bright eyed and inquisitive, gone were those cyanotic lips, gone was the rapid breathing. He had done well in Oklahoma City. His parents thanked me for Josh's care. They apologized for interrupting my Christmas celebration. They spoke in positives about the nursing care, the respiratory therapist and the ambulance folks. They were relieved that the ordeal was over.

As I walked from that room I was reminded, once again, of the reason why I am a physician. I was reminded again of the calling.

Since that time, I secretly hope for Christmas call, it forces me to quit being so self-centered and gives me opportunity to confront the wonderful blessings that I have been given.

Medicine has become such a cynical business, sometimes we need Christmas children to remind us of the miracles that happen in our lives.

J. Michael Pontious, MD

The Best Christmas Present

"My son was born at Christmas ten years ago. We spent Christmas Eve and Christmas Day at Tripler Army Medical Center, where I was stationed at Pearl Harbour, Hawaii," Dr. Crutcher said. "He was born on Christmas Day, 1988. I can't think of a better Christmas than that!"

James "Mike" Crutcher, MD

A Memory from Younger Days

"Let me tell you a sweet little story," Dr. Calhoon said. "It was 1932. There were four boys in a country schoolhouse, and not one of them had any money. So we took a branch—I think it was a cottonwood branch—and wrapped it in green paper. We found some popcorn, popped it up, and strung it. Then we found some cranberries and strung them. We hung the popcorn and cranberry strings on the branch, and had Christmas. It was even the tree for our school Christmas program."

Ed Calhoon, MD

Each Christmas is Memorable

"My wife is a Christmas nut," Dr. Bozalis said. "She puts such an emphasis on Christmas, with the cooking, decorating, playing Christmas music, everything. There is a childlike excitement about it, and the kids would always follow her example." Dr. Bozalis also gets involved in the preparations. "It can be sleeting outside and I'm out there putting lights on the house," he said.

John Bozalis, MD

NEWS FEATURE

Innovative New Program Unites Physicians and Educators

Physicians already know that Oklahoman's are not healthy. The Oklahoma State Health Department has provided extensive data demonstrating that the State of the State's Health is in need of serious attention. All across the state, medical doctors are discussing ways to impact and improve our public's health.

In fact, a very dedicated group of physicians in Oklahoma County are doing more than just talking about the problem. They're donating their time and energy to one of the state's most dynamic and innovative health programs, *Schools for Healthy Lifestyles* (SHL), now in its second year in the Oklahoma City School District.

Oklahoma County physicians are partnering with teachers and administrators in the school district, with the goal of educating children to live healthy lifestyles.

At Stonegate Elementary, students walk with their physicians around the playground during recess, earning miles to "Reach the Beach." The first class to earn miles equivalent to the distance from Oklahoma City to Galveston, Texas, will receive a beach party.

At Sequoyah Elementary, teachers and administrators are working with participating physicians to plan activities for a fall school Health Fair, following the completion of the school's new walking track.

Involved in 13 schools across the school district, physicians volunteer their medical expertise and time to speak to students, parents and teachers about health and safety concerns that affect children today.



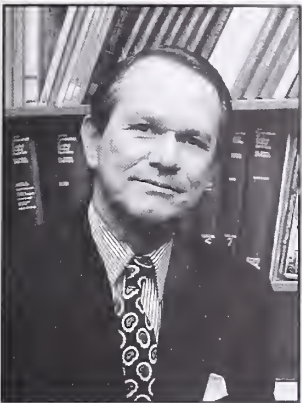
Dr. Tony Leveridge walks with students at Stonegate Elementary.

SHL: A Proven Model Selected for Oklahoma

SHL is the result of an inquiry led by Michael Winzenread, MD, a family practice physician in Oklahoma City and past president of the Oklahoma County Medical Society (OCMS). During his presidency of OCMS, Dr. Winzenread was working with other physicians to identify ways to address the issue of teen pregnancy and methods for reducing its incidence in Oklahoma County. The committee charged with this important task learned of a program in Louisville, Kentucky, called *Health Promotion Schools of Excellence* (HPSE). The Louisville program was developed following the release of its state of the state's health report, in response to Kentucky's own concerns about the health of its citizens. The HPSE program was designed to address a legislative mandate that something be done to improve the health of the state's children, and is the first of its kind in the country.

Directors of the Louisville program were invited to present a one-day seminar on the HPSE program in Oklahoma City. "There was a tremendous turnout that day," said John Bozalis, MD, past president of OCMS and project director for SHL, "including Beth Ramos, who became our first program director." As Dr. Bozalis took over as president of OCMS, the issue of whether or not to implement such a program was debated for several months. Although the concept almost died before Dr. Bozalis agreed to spearhead the program, the decision to continue was made. Beth Ramos attended the week-long planning session in Louisville, and a list of potential advisory board members was developed.

"We identified leaders from every ethnic and economic community in Oklahoma City," Dr. Bozalis said. "We called approximately 50 people, asking each to be involved in this new project. At the first meeting, only one person from that list of names did not attend. We developed committees and started implementing the template provided by the Louisville program."



“This program arose directly from Oklahoma physicians’ concerns for the health of our state’s children.”

Dr. Bozalis

**Physician Members
SHL Advisory Board**

J. Christopher Carey, MD
Past President
Oklahoma County Medical Society

Harriet W. Coussons, MD
The Child Study Center

Susan Edwards, MD
St. Anthony Hospital

Devaki Ganesan, MD
Medical Director
General Motors
Acceptance Corporation

D. Robert McCaffree, MD
Chairman
Oklahoma County Medical Society
Community Health Committee

Philip Mosca, MD
Medical Director
Healthcare Oklahoma, Inc.

Edd D. Rhoades Jr., MD,
Oklahoma State Health Department

Kent Ward, MD

SHL: Physician Leaders Making a Difference

Since its conception, the Advisory Board of *Schools for Healthy Lifestyles* has included several physicians, including Dr. Bozalis, project director. Other advisory board members include staff and administration of medical, educational, and business enterprises in Oklahoma City. Amy Roberts, MPH, CHES, currently serves as SHL’s program manager.

Dr. Bozalis says the presence of physicians on the Advisory Board and their prominent role in bringing this program to Oklahoma City is important. “Physicians haven’t always been perceived as being willing to go out into the community and contribute to preventative efforts,” he said. “This program arose directly from Oklahoma physicians’ concerns for the health of our state’s children.” That change in perception is the result of physician involvement, not the reason for it.

D. Robert McCaffree, Advisory Board member and chair of the Community Health Committee for OCMS, believes in the goal of the program—to teach children about healthy lifestyles and choices at an early age. “If you look at the data, people in Oklahoma are unhealthy because of the choices they make and unhealthy lifestyles,” Dr. McCaffree said. “In order to change that, we need to start very early—in fact, the earlier the better—by teaching children about the effects of positive, healthy choices in their lives.”

Advisory Board Member Edd D. Rhoades, Jr., MD, says children need to be healthy to learn. “If children aren’t healthy, they won’t do well in school,” Dr. Rhoades said. “As their health improves, their school performance improves, too. That’s often a connection we don’t think about.”

The SHL program emphasizes cancer control, cardiovascular risk reduction, injury prevention and physical fitness as its four main components. Participating schools are required to conduct health-related physical fitness exams twice during the academic year. In addition, all students in the fourth and fifth grades are required to complete a survey designed to measure their thoughts about and knowledge of health concerns, as well as their health behaviors.

Schools must be selected for participation in the program. The application process, held in the spring, requires a demonstration of support from the school and surrounding community. Each school accepted is required to establish a school health committee. Representatives of each school attend a one-week planning session called the Summer Health Institute. During the Institute, program leaders from each school learn about children’s health issues and how to design and implement the SHL program to meet their school’s unique needs.

SHL continues to grow, both in numbers and program development. This fall, 13 schools are involved, compared with the eight charter schools of 1997-1998. Elementary schools in the 1998-1999 program are: Columbus, Edgemere, Hayes, Heronville, Horace Mann, Johnson, Parker, Pierce, Sequoyah, Stand Watie, Stonegate, West Nichols Hills and Willow Brook. First-time participant schools are matched with charter schools, which serve as mentors.

Committee members at their Nov. 3 meeting for the Sequoyah Elementary School Adopt-A-Doc program are (from l-r) Amy Roberts, DeAnn Davis, Dr. Robert Beckerley, Linda Pelton, Michelle Coffee and Stephanie Janz.



Adopt-A-Docs 1998-1999 school year

Robert Beckerley, MD
Don Bradke, MD
Kathryn Brewer, MD
J. Christopher Carey, MD
William Conkling, MD
Steven Crawford, MD
Rhonda Forren, MD
Tim Grode, MD
Susan Hakel, MD
Susan Harmon, MD
Andrea Key, MD
Tony Leveridge, MD
James Lynch, MD
Sulabha Meta, MD
Lynn Mitchell, MD
Michael Morgan, MD
Okey Nwokolo, MD
Jeff Sabine, MD
Johnaqa Saidi, MD
V.N. Shah, MD
Roger Sheldon, MD
M. Boyd Shook, MD
Constance Smiley, MD
Mitchell Wolf, MD

For more information on the Schools for Healthy Lifestyles program, contact Amy Roberts, Program Manager, at 405/425-4385.

SHL: Adopt-A-Docs Volunteer in Oklahoma City Schools

This fall, members of OCMS were asked to participate in Adopt-A-Doc, a new component of SHL. "Adopt-A-Doc is not a requirement for SHL, but the schools really like it," said Amy Roberts. Letters asking for their volunteer participation were mailed to pediatrician and family practice physicians. With 25 physician volunteers, nearly every participant school is matched with two Adopt-A-Docs.

Physicians in the Adopt-A-Doc program serve as medical experts to participating schools' Health Committees, as well as providing educational resources to the school and its students, faculty and parents. This may involve speaking to parents and faculty, participating in fitness activities with students, or making classroom or school assembly presentations.

Each school health committee determines the exact role and participation of their Adopt-A-Docs in the SHL program. The only requirement is that the Adopt-A-Docs do not provide clinical care within the schools; that role is met by referrals to participating community partners. The physicians' role is to be consistent with the theme of education and prevention.

Why is physician involvement so important to SHL? "Traditionally, medical school training has not included preventive medicine," Dr. Bozalis said. "Even clinics are a reaction to illness and disease treatment. Typically, people in the

community are the ones that have addressed preventive measures for health and well-being."

Getting involved in preventive efforts enables physicians to stop disease before it starts. "Some say you can't tell people how to live," said Dr. Bozalis. "But in some cases, people don't know. Through this program, we can tell kids now what they need to know to prevent illness and disease."

Dr. Tony Leveridge, Adopt-A-Doc to Stonegate Elementary, echoes Dr. Bozalis' concerns. "Too often our emphasis is on treating people's illnesses," he said. "Not enough time is spent on prevention and this is a good opportunity to do so."

Dr. Bozalis points to the irony of the Louisville program as a testament to the success of this kind of approach. "Historically, what has Kentucky's economy been based on? Tobacco and liquor," he said. "And now they are teaching kids that those things are bad for them."

Adopt-A-Docs quickly cite other reasons for participating in the program. "I attended Oklahoma City Public Schools," said Dr. Leveridge. "This is one way I can give something back to the education I received."

Robert J. Beckerley, MD, also believes in contributing to education. "I became involved because I believe strongly in helping children grow up right," he said. "We can do that by supporting our schools and getting involved in the upbringing of our children."

Schools for Healthy Lifestyles "Adopt-A-Doc" Program

Tony Leveridge, MD

This story, Schools for Healthy Lifestyles "Adopt-A-Doc" Program, first appeared in the October 1998 issue of the Oklahoma County Medical Society Bulletin and is reprinted with permission.

All physicians have at least one thing in common – we owe so much to educators who taught us as we grew up. From kindergarten through medical school, each of us can remember men and women who stimulated our minds and touched our hearts. This month, a number of OCMS physicians of varied specialties became involved in a program called Adopt-A-Doc in conjunction with the Oklahoma City Public Schools.

These physicians serve as an educational resource for those involved in the Schools for Healthy Lifestyles. By affiliating with an individual school, each physician will serve on the Health Advisory Committee, provide staff inservices and parent presentations as well as presenting health lessons to students. It is anticipated that a solid relationship will develop between the school patrons and physicians.

The Schools for Healthy Lifestyles program is in its second year of existence, but this is the first year for inclusion of Adopt-A-Doc. The enthusiasm displayed by the teachers and administrators is contagious and I have no doubt that this will be a very rewarding experience. Although many health issues are universal, each school has its own special needs and goals. As the program is developed and refined, we hope to see it expand to more schools throughout the district and eventually involve other school districts.

I am certainly excited to be associated with Stonegate Elementary and look forward to a very rewarding year. As the program expands, many other Oklahoma County physicians will be called upon to give something back to education.

SHL: The Future Looks Bright

The growth of SHL, at this time, is almost assured. "I believe SHL will continue to grow, and that more schools will become involved as they see the success of the program," said Dr. McCaffree. "It has modeled the role of the school and the health community in teaching children about healthy living."

Statewide expansion of SHL is something envisioned by program coordinators; however, the growth process is not taken lightly. "There is a complexity to the program that needs to be honed before we can expand it across the state," said Dr. Bozalis. Only in its second year, outcome data is not yet available for SHL, which is another reason to manage the expansion of the program at this time. Planning and development is currently

underway to develop outcome measures for SHL.

Elementary schools remain the primary target for SHL. "The earlier we start teaching children, the more they can learn," said Amy Roberts, program manager. "We can begin building a foundation as early as kindergarten, establishing healthy habits as a part of a routine as children,



Students at Stonegate Elementary visit with (from l-r) Kathi VanDuyne, Dr. Tony Leveridge and Theresa Matthews after walking to earn points for a beach party, one incentive of this school's Healthy Lifestyles program.

rather than teaching them to change bad habits later in life." Expanding SHL to middle school and high school is something that will wait for now. "We want to be good at one thing before we start something new," Ms. Roberts said.

One indicator of the success of SHL is the recognition it is receiving. On November 13, 1998, SHL was awarded the Governor's Council on Physical Fitness and Sports Youth Fitness Award, presented to Amy Roberts during the Ninth Annual Conference on Fitness and Sports. Praises for SHL come from within the program as well. "It is an extremely strong and vibrant program," said Dr. McCaffree. "Program coordinators are almost wildly enthusiastic about what they are doing in their schools."

Perhaps the best indicator of success is the attitudes and behaviors of the students at SHL schools. Kathi VanDuyne, SHL program coordinator at Stonegate Elementary, is excited about students' response to the walking program and "Reach the Beach" incentive because it provides an opportunity for all students, even those who may not do as well in school, to participate in an activity in which they are successful. "We have plastic feet that the kids receive for every five miles walked. They can attach them to their shoelaces to mark their miles," she said. "When they stick their feet out, they are showing you how far they've walked."

While it may be a long walk to the beach, Oklahomans have an even longer way to travel to improve the state's health. Thankfully, physicians are paying attention and leading the way. It is only through the efforts of this group of dedicated physicians, and others, that real and meaningful improvements will be made.

NEWS

Nation's First Externship Program Developed by OSMA

The International Medical Graduates (IMG) Council of OSMA has established an Externship program, giving physicians an opportunity to contribute to the education of international medical students wishing to practice medicine in the United States. As the first program of its kind in the country, the IMG Externship is providing a model for other states to use. The program is based on the concept of an externship, in which students participate in the supervised practice of a particular discipline in an established, private business.

Dr. K.A. Mehta, chair of the IMG Council, established the program which began in October 1998, in response to a new requirement for internationally-trained physicians who wish to practice medicine in the United States. As of July 1998, physicians licensed to practice medicine in other countries must demonstrate the ability to take a patient's history and conduct an exam using accepted medical procedures. "If a physician is new in this country, and waiting to take the exam or to be placed in a residency program, he or she will benefit by participating in this Externship program," Dr. Mehta said.

The Externship assists those who are waiting to take the Test of Clinical Competence exam, and those who are awaiting placement in a residency program, by allowing them to observe the process of taking a patient's history, conducting an exam and the process involved in reaching a diagnosis.

This innovative pilot program is designed to allow physicians from other countries to observe and learn the methodology of obtaining a patient's medical history and conducting a physical examination, as considered acceptable by American medical standards. This observation is supervised by the sponsoring physician and is conducted without any direct contact with the patient or the patient's medical records. During the Externship, the participant may be matched with up to four physicians of different specialties, each for three weeks. At the conclusion of the 12-week Externship, the IMG Council of OSMA provides the extern with a letter indicating the physician supervisor and specialty, as well as number of weeks in the program.

According to Dr. Mehta, several other states have already contacted him about starting a similar program—something that he encourages. For more information or to be involved in the Externship program, contact OSMA, 405/843-9571 or 800/522-9452, or Dr. Mehta, 405/232-2178.



David M. Selby, MD, Accepts Appointment to AMA Position

David M. Selby, MD, recently accepted an appointment to the Board of Directors of the American Medical Political Action Committee (AMPAC) of the AMA. Selby will begin his two-year appointment on Dec. 1, 1998. There is a maximum tenure of four two-year terms for members of the AMPAC Board.

Over the past five years, Dr. Selby has represented OSMA during visits to Washington, DC, including visits for the AMA Call to Action—Clinton Health Care Reform, AMA Leadership Conference, AMA Grassroots Legislative Conference, and the AMA "Fly-In" for the Patient Protection Act. In his acceptance letter dated Oct. 19, Dr. Selby said, "It will be a privilege to serve in this capacity and I look forward to the opportunity to interact with such a group of dedicated colleagues."

Maryland Physician Chosen for Endowed Chair

John J. Mulvihill, MD, has been selected as the first person to hold the Kimberly V. Talley/Children's



Medical Research Institute Chair in Genetics, a \$2 million endowed chair supported in part by the Children's Medical Research Institute.

Dr. Mulvihill is Chief of the genetics section at Children's Hospital of Oklahoma and director of the human genetics program at the University of Oklahoma College of Medicine. Prior to his arrival in Oklahoma this September, he spent 20 years with the National Cancer Institute in Bethesda, MD, and nine years at the University of Pittsburgh. Current research involves studies on how genetics influence cancer risk, including neurofibromatosis (a condition in which nerves become neoplastic and sometimes malignant).

"My goal is to improve existing, and initiate new, genetic research, training, and services throughout Oklahoma," said Dr. Mulvihill. "This can be accomplished by establishing quality clinical and laboratory resources. We want to educate physicians, other health care professionals, and the public about genetic diseases and the different options available for testing and treatment."

State Questions 680 & 681 Hold Implications for Medical Research in Oklahoma

This year's election included two state questions which impact medical research in Oklahoma. State Questions 680 and 681, also called the "technology transfer proposals," were supported by Governor Frank Keating, Lieutenant Governor Mary Fallin, State Treasurer Robert Butkin and Attorney General Drew Edmondson. Both were approved during the Nov. 3 election; as a result of passage, Oklahoma's Constitution will be amended to reflect this policy change.

The passage of these bills allows Oklahoma business and educational facilities to partner for the development of technology. Other states, including Texas, North Carolina, and California, already allow such partnerships.

Specifically, businesses are now able to partner with Oklahoma colleges and universities to develop new products and technology, and state employees and educational institutions will be able to partner financially in resulting start-up businesses.

In the past, technology developed in Oklahoma's educational facilities has been licensed to out-of-state compa-

nies, creating a loss of new Oklahoma job opportunities from technology developed in the state.

Dr. Frank Waxman, vice president for research at the University of Oklahoma Health Sciences Center in Oklahoma City, believes that the passage of 680 and 681 is an important decision for Oklahoma.

"This is an important first step because it allows businesses to utilize university facilities and allows scientists and the institution to hold equity positions in new Oklahoma companies based on University discoveries," Dr. Waxman says.

"This is a positive first step. The next critical step will be to establish a source of venture capital with an Oklahoma focus to support the development of new businesses that arise from new technology."

Dr. Waxman believes the same opportunities for growth and development exist for medical research.

"Currently, we are trying to locate funding for newly-created companies involved in telemedicine and research on inflammatory diseases."

The purpose of an adjacent research part is to provide physical proximity to businesses wishing to partner in research at the Health Sciences Center.

"In the past, we have had to license our patents and technology to companies out-of-state. Now we will be able to keep both the business and technology here in Oklahoma," Dr. Waxman said.

State Questions (on the Nov. 3 ballot)

No. 680:

This measure would amend the state Constitution. It would amend Section 14 of Article 10. Under current law, public property can only be used for public purposes. This measure makes an exception for use of public property for certain projects. These projects would involve research and development of a technology. The technology could be a product, process or idea. A college or university would be able to let a business use its property to develop these kinds of projects.

No. 681:

This measure would amend the Oklahoma Constitution. It would amend Section 15 of Article 10. This measure would allow a state college or university to own technology. Technology could be a product, process or an idea. Higher education employees could also own technology. This measure would allow colleges or universities to own an interest in a private business. It would also let higher education employees own an interest in a private business. The private business would have to make a product or invent a process or other idea. The product or process or idea would come from help the business received. The help could be from being able to do the research at a college or university. Laws could be passed to control how a college or university owned a business interest. Laws could be passed to control how the employees could own a business interest.

New Biomedical Research Building Open at University of Oklahoma Health Sciences Center

The Stanton L. Young Biomedical Research Center has opened at the University of Oklahoma Health Sciences Center in Oklahoma City. The facility, a four-story, \$22 million structure, was dedicated earlier this year. The building structure was organized around three research themes covering the fields of cellular and structural biology, human genetics, and molecular medicine. This design allows for collaborative research to be conducted by scientists in related disciplines.

Each of three research "neighborhoods" occupies a floor of the new structure, with eight laboratories per neighborhood and office space. An enclosed, all-weather pedestrian connection provides access to the existing laboratory building on three levels. "This is a world-class research facility," says Dr. Frank Waxman, vice president of research for the Health Sciences Center. "With this facility, we are able to learn more about treating and preventing disease, in order to alleviate suffering. That is our goal."

Additional features of the facility include a reception area, conference area and an auditorium equipped with advanced audiovisual equipment, as well as the necessary utility support, environmental safety features and back-up generators required by an advanced facility. "It is so important that the University of Oklahoma has chosen to provide a new research center dedicated to the creativity of its scientists," microbiologist Madeline Cunningham, a researcher at the facility, said. "It is through these beginnings that the University of Oklahoma Health Sciences Center will bring new discoveries to our world and, at the same time, teach students who are the future of tomorrow's science and medicine."

Jane E. Henney, MD, Confirmed as First Woman Commissioner of Food & Drug Administration

Jane E. Henney, MD, was confirmed by the Senate as Commissioner of the Food and Drug Administration (FDA) on Oct. 21, 1998. This confirmation returns Henney to the agency which she served for four years as deputy; as Commissioner, Henney is the first female to head the FDA. Henney, a graduate of Indiana University Medical School, has also worked as deputy of the National Cancer Institute.

Dr. Henney's earlier tenure in Washington coincided with the service of Edward N. Brandt, MD, former U.S. Assistant Secretary for Health. Dr. Brandt, an OSMA member and chair of the OSMA Council on Legislation and Regulation, says Henney is an excellent choice for Commissioner. "She is committed to public service, and is a warm, kind individual," Dr. Brandt said.

Henney's appointment was backed by several national organizations, including the AMA, the American Academy of Pediatrics, the American Heart Association and the American Cancer Society.

AMA Developing New Current Procedural Terminology System

The AMA is currently working to develop a new Current Procedural Terminology (CPT) system to be used in the next century. This new system (currently referred to as CPT-5) will:

- * Maintain its position as the authority on procedure coding
- * Enhance CPT's use by physicians
- * Address the needs of nonphysician providers
- * More appropriately address different sites of service
- * Better serve the needs of researchers, managed care, and the international community
- * Improve the timeliness and open information exchange of the maintenance and editorial process
- * Bolster the structure to allow greater code specificity and computerized patient records.

Number of Deaths from AIDS Drops in Oklahoma and United States

The total number of deaths from AIDS in Oklahoma has declined from 253 in 1994 to 111 in 1997. From 1992 to 1996, HIV infection was the third leading cause of death for Oklahomans age 25 to 34, and the fifth leading cause of death for Oklahomans age 35 to 44. This decline is attributed to new treatments and regimens that have extended the lives of HIV-infected individuals, according to the Oklahoma State Health Department.

AIDS has dropped from the eighth leading cause of death to the 14th leading cause of death in the United States. According to the October 26 issue of *American Medical News*, data from the Department of Health and Human Services for 1997 shows that 16,865 people died from AIDS, reflecting a decline of almost half the number of deaths from AIDS in 1996.

Further analysis by age-adjusted death rates from HIV infection in the United States and Oklahoma show an unprecedented decline from 47 percent in 1996 to 36 percent in 1997. Data from the Oklahoma State Health Department indicates that the 1997 U.S. age-adjusted HIV death rate of 5.9 per 100,000 is the lowest since 1987, and the 1997 Oklahoma age-adjusted HIV death rate of 3.3 per 100,000 is the lowest since 1988.

Top Ten Leading Causes of Death in Oklahoma from 1992-1996 (by age)

Age: 25 to 34

1. unintentional injuries
2. suicide
3. HIV

Age: 35 to 44

1. malignant neoplasms
2. unintentional injuries
3. cerebrovascular diseases
4. suicide
5. HIV

Data provided by the Oklahoma State Department of Health

Age-Adjusted HIV Death Rate, 1992 to 1996 (per 100,000)

	1992	1995	1997
Oklahoma	6.6	7.3	3.3
United States	12.6	15.6	5.9

Data provided by the Oklahoma State Department of Health

Oklahoma Physician/Lawmaker is Co-Author of Federal HIV Legislation

U.S. Representative Tom Coburn, MD, is co-author of the HIV Partner Protection Act of 1998, introduced to the legislature earlier this year. The act would require physicians to report positive HIV test reports to their state public health officers in a confidential manner.

Any information on sex partners provided by the patient would also be reported, in order to notify partners (via public health officers) of possible infection and encourage testing and counseling. Patients who refuse to disclose names would not be subject to civil or criminal penalties, and insurers could not discriminate against anyone undergoing testing.

"Partner notification breaks the cycle of transmission by identifying those at risk of infection," Dr. Coburn said, during a congressional subcommittee hearing on the issue. "During the first years of the AIDS epidemic, however, traditional public health policies were suspended and replaced with extraordinary protections in the hope that high-risk individuals would be voluntarily tested. This policy has failed miserably."

Number of Americans Without Insurance Continues To Rise

Despite a strong economy, the number of Americans without health insurance continues to rise, according to an article in the Oct. 26, 1998 issue of *American Medical News*. Data released by the U.S. Census Bureau indicates that 16.1 percent of Americans did not have insurance in 1997, up from 15.6 percent in 1996—an increase of 1.7 million uninsured Americans. This growth trend is attributed in part to the return to work of Medicaid recipients who often take low-paying positions that either offer no insurance or insurance that does not fit within the price range afforded by their salary.

Other data from the Census Bureau reflects the current state of insured Americans. The percentage of workers with employer-based health insurance policies is highest for firms with 500 to 999 workers (66.7%), followed closely by firms with 1,000 or more workers (66.6%). While the number of children under the age of 18 rose slightly (from 14.8% in 1996 to 15% in 1997), that number is expected to decrease as the Children's Health Insurance Program is implemented.

Thirty percent of young adults (age 18 to 24) were uninsured in 1997, making them the least likely to have insurance coverage by age group. The Hispanic population has the highest rate of uninsured individuals; an estimated 34 percent of Hispanics were uninsured in 1997, compared with 12 percent of non-Hispanic white people.

Legislation on Organ Transplant Availability Delayed

The U.S. Congress has delayed ruling on federal regulations regarding availability of organs for transplant for at least a year. On Oct. 15, a moratorium was placed on the legislation, which would have required transplant centers to make organs available nationally rather than locally or regionally. Transplant centers and physicians have report-

edly been working to overturn the regulations, which were proposed in April.

Calling on the Institute of Medicine to study the issue, Congress is requiring the current contractor of the organ donation system, United Network for Organ Sharing (UNOS) to make available more timely outcome data on transplant centers.

LETTER TO THE EDITOR

PLICO RESPONSE

TO THE EDITOR:

Please let me respond to the letter to the editor from Dr. David W. Foerster, M.D., in response to his questions concerning small employer groups (less than 20 persons).

When ERISA developed the guidelines, it did leave discretionary latitude for small employer groups (less than 20), to be covered by the basic plan (in this case, PLICO Health). However, the health committee looked at the options very carefully and a business decision was made to make Medicare primary in

small employer groups with a Medicare Supplement available. This option allows PLICO to keep the premiums at the lowest rate possible consistent with prudent management.

Further, I would like to explain that the number 20 is not a magical number, however, this number was prescribed by the federal government.

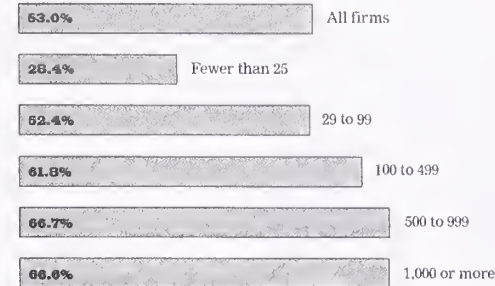
Dr. Foerster was not told that to insure him would cost PLICO Health hundreds of thousands of dollars. Rather he was told that the decisions made by the PLICO Health Commit-

Robert Block, MD, Receives Master Teacher Award

Robert Block, MD, received the \$10,000 Stanton L. Young Master Teacher Award, given to a College of Medicine faculty member who surpasses levels of excellence in their teaching or clinical rounds. Block is a professor and chair of the Department of Pediatrics at the Tulsa Campus of the University of Oklahoma Health Sciences Center, and is considered an authority on child abuse and child and adolescent behavior and development. (*HSC Notes, Fall 1998*)

WHO HAS HEALTH INSURANCE?

Percentage of workers with employment-based health insurance policies in their own name, by size of firm, 1997.



SOURCE: U.S. CENSUS BUREAU, MARCH 1998 CURRENT POPULATION SURVEY

Letters to the Editor do not necessarily reflect the editorial policies or beliefs of *The Journal* or the Oklahoma State Medical Association. All submissions are subject to editing.

Address your letters to:
Ray V. McIntyre, MD
OSMA Journal Editor
601 W. 1-44 Service Road
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tee and Board have saved PLICO Health hundreds of thousands of dollars because Medicare pays as the primary payor. This has allowed PLICO Health to stabilize and keep the premiums as low as possible.

We are pleased to report that Dr. Foerster and his staff have returned to PLICO Health for their health insurance.

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Vice President and Medical Director
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DEATHS

Leaford Thornbrough, MD 1928 - 1998

Leaford Thornbrough, MD, died September 27, 1998. Born February 3, 1928, in Fort Cobb, Thornbrough was raised in Oklahoma. Prior to his medical career, Thornbrough served in the United States Army during World War II from October 1946 to March 1948. In 1961, Thornbrough entered the University of Oklahoma Medical School, then received his medical degree in 1965. In addition to his medical practice, Thornbrough farmed and ranched in the Rhea area. Practicing in Sayre since 1966, he was a member of both the American Academy of General Practice and the Oklahoma State Medical Association.

Sumner Y. Andelman, MD 1914 - 1998

Sumner Y. Andelman, MD, died October 6, 1998. During World War II, Andelman served 65 months active duty in the United States Army, including 20 months overseas, achieving the rank of Major. Following his undergraduate education at Harvard University, Andelman attended the University of Buffalo School of Medicine where he earned his medical degree in 1941. During his career, Andelman served as president of the Tulsa County Public Health Nursing Service board of directors; member of the board of directors for the Arthritis Foundation; Consulting Physician for the Center for the Physically Limited and the American College of Rheumatology; and life member of the Oklahoma State Medical Association.

Eric B. Meador, MD 1928 - 1998

Eric B. Meador, MD, died October 10, 1998. Born in Sedalia, Missouri, on August 29, 1924, Meador came to Oklahoma City as an infant. He served active medical military duty in the United States Army from April 1943 to March 1946, and February 1951 to January 1953. Meador attended the Indiana University School of Medicine, receiving his medical degree in 1948. He practiced pediatric medicine from 1955 to 1997. Meador was a member of the Oklahoma State Medical Association.

IN MEMORIAM

1998

Harold George Sleeper, Jr., MD	January 26
Roy K. Goddard, Jr., MD	February 9
Byron Fremont Smith, MD	February 21
Emil Maurice Childers, MD	February 22
Burton Bonnard McDougal, MD	February 23
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Jack Paul Enos, MD	April 19
Paul Arthur Barnett, MD	April 28
Allen B. Eddington, MD	May 20
David C. Ramsey, MD	May 22
William H. Reiff, MD, FACS	May 25
Jerry L. Puls, MD	June 5
James M. Behrman, MD	June 5
Charles N. Talley, MD	June 14
Thomas C. Points, MD, PhD	June 15
Charles M. Cameron, Jr., MD	June 22
Philip G. Tullius, MD	July 4
Louis H. Charney, MD	July 8
Ralph L. Walker, DO	July 11
Brook S. Bowles, MD	July 20
Edwin R. Shapard, MD	July 28
Paul L. Masters, MD	August 6
Douglas D. Leatherman, MD	August 21
Richard E. Carpenter, MD	August 30
Henry J. Freede, MD	September 9
Chester K. Mcngel, MD	September 14
Leaford Thornbrough, MD	September 27
Sumner Y. Andelman, MD	October 6
Eric B. Meador, MD	October 10

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Classified ads are 50 cents a word, with a minimum of \$25 per ad. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and will add 6 words to the total. *Payment must accompany all submissions. Orders will NOT be accepted via telephone or fax. Mail ad with payment to OSMA JOURNAL, 601 West Interstate 44 Service Road, Oklahoma City, OK 73118. Deadline is the 15th of the month prior to the month of issue (e.g., Dec. 15 for the Jan. issue).*

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Style

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ered, the key points of methodology and success of execution, the key finding, and the conclusions directly supported by these findings.

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THE LAST WORD

Physician Performs Oklahoma's First Newborn Mandibular Distraction

Jayesh Panchal, MD, a plastic surgeon at Children's Hospital of Oklahoma, performed Oklahoma's first mandibular distraction on a newborn baby. The child was born with Pierre Robin syndrome, a condition that results in a cleft palate and small lower jaw. Only five days old, the infant underwent the procedure (which was only developed in recent years), to lengthen her lower jawbone and prevent the need for a tracheostomy tube. Before this surgery, the procedure had only been performed on children older than two.

John C. Sacra, MD, Responds to Red-Light Running

In a letter to the *Tulsa World*, John C. Sacra, MD, and medical director of Emergency Medical Services Authority (EMSA), commends the publication for its article on red-light running and advocates both public awareness of the dangers of running red lights and the enforcement of laws prohibiting motorists from running red lights.

The Red-Light Running Campaign, organized nationally by the American Trauma Society, is embraced by EMSA. Together, they are looking for ways to increase public awareness of the problem while looking for creative methods to address it.

AMA Releases Guidelines on Firearm Safety

During a briefing held on Nov. 4, the American Medical Association released its *Physician Firearm Safety Guide* as part of the AMA's Physicians' Campaign Against Family Violence series. The guide, which addresses the issue of firearm safety from both the public health perspective and the clinical perspective, was designed as a tool to help physicians discuss firearm safety with their patients and patients' families. The document includes a review of the epidemiology of firearm injuries and deaths, an explanation of who is at high risk of being a victim of gun violence, a description of the technology of different firearms and information about how guns should be handled and stored. Physicians who are interested in joining the AMA Physicians' Coalition Against Family Violence or would like to obtain a copy of the *Physician Firearm Safety Guide* may call the AMA at 312/464-5066.

Congressman Coburn Comments on Health Reform Bill

U.S. Representative Tom Coburn (R), MD, said that a health reform bill passed by the House of Representatives was a small but needed fix for health care for senior citizens. The bill approved a five-percent increase for reform to assist senior citizens and home health agencies by providing financial equity. (*Muskogee Phoenix*, Oct. 10, 1998)

Prime Conditions for Influenza Occur During Winter Months

Now is the time to remind patients to schedule their annual influenza vaccine. Conditions that foster the spread of influenza predominate during the winter months. Colder, shorter days lead to an increase of time spent indoors, as well as closer contact with other individuals. Travel during the holiday season also contributes to the spread of influenza. Last winter, at the peak of the influenza season, 46 states reported widespread or regional outbreaks of the illness. Influenza vaccines may still be administered throughout December as a prevention during the winter months.

U.S. Army and American Red Cross Developing New Bandage Technology

Researchers for the U.S. Army and American Red Cross are developing a bandage that can stop severe bleeding within seconds. Freeze-dried clotting agents, in concentrations 50 to 100 times greater than those in human blood, are being used in the bandage and related foam and spray. Scientists testing the new products indicate that they have stopped arterial bleeding in animals in as little as 15 to 60 seconds, reducing the amount of blood loss by 50 to 85 percent. Clinical trials are expected to begin within a year. It is anticipated that the new bandage, foam, and spray could be used in emergency and trauma situations, as well as surgical procedures. (*Associated Press*, Nov. 11, 1998)

United Healthcare Withdraws from Medicare HMOs in 12 States

United Healthcare is pulling its Medicare managed care program in 12 states. The announcement was made Oct. 1, less than two months after United announced a restructuring charge of \$900 million, including \$120 million attributed to higher-than-expected Medicare costs. As a result, approximately 59,000 Medicare beneficiaries will need to find new health plans starting January 1. States affected by the pullout include Arkansas, California, Colorado, Florida, Georgia, Illinois, Louisiana, Maryland, New Jersey, New York, Ohio and Texas. (*American Medical News*, Oct. 19, 1998)

Physician's Son Selected to Study at Prestigious Ballet Academy

Tyler Nelson, son of David Nelson, MD, was recently accepted to the Kirov Academy of ballet as one of 14 dancers selected from 20,000 applicants. The Academy has produced international gold-medal dancers; its parent Vaganova Academy trained Anna Pavlova, Vaslav Nijinski, George Balanchine, Michel Fokine, Maria Danilova, Rudolf Nureyev, Alla Sizova, Natalia Makarova, and Mikhail Baryshnikov. Nelson will train and study year-round at the Academy.

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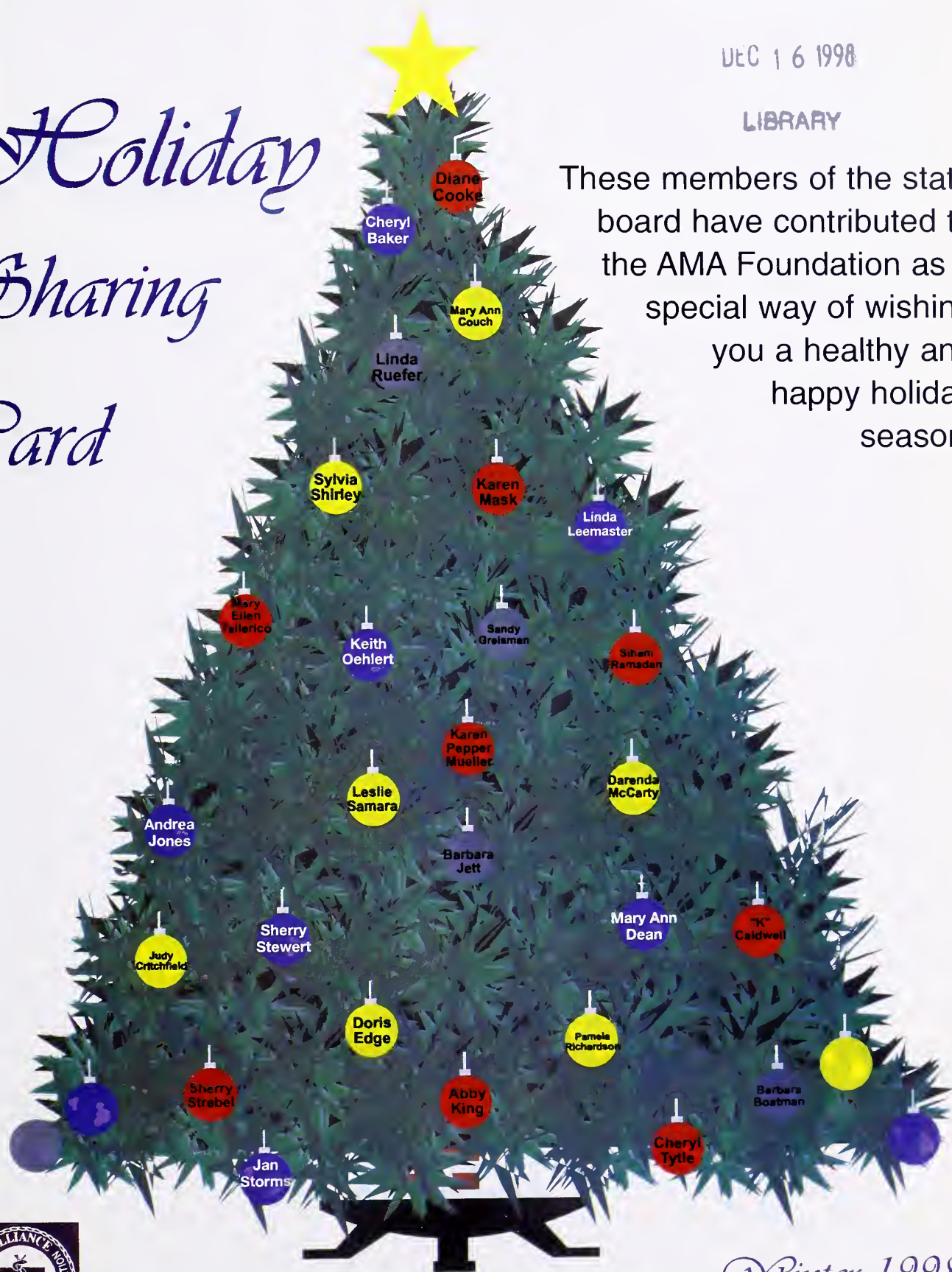
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